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THE  
HAPPY  
FAMILY

# DISSENT OF CHILDREN

THE

OF THE

FOR PARENTS

AND

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LONDON

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THE



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A TREATISE

ON

THE PRINCIPAL



# DISEASES OF CHILDREN,

WITH A

*SIMPLE METHOD OF CURING THEM:*

ADAPTED FOR GENERAL USE,

AND ESPECIALLY

FOR PARENTS.

By J. GERVINO, M.D.

MEMBER OF THE MEDICAL COLLEGES OF THE UNIVERSITIES OF  
PAVIA AND TURIN; LATE PROFESSOR OF SURGERY  
IN PIEDMONT.

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LONDON:

PRINTED FOR T. AND G. UNDERWOOD,  
FLEET STREET.

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1829.





Printed by RICHARD TAYLOR,  
Red Lion Court, Fleet Street.





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A TREATISE  
ON  
THE DISEASES OF CHILDREN.

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INTRODUCTION.

SCARCELY have the mother's pains subsided, than the new-born infant, as if aware of the evils which are to attend his life, announces his arrival in the world by doleful cries. The wonderful work of nature being thus accomplished, the child, by an inconceivable fatality, seems to be almost abandoned by the hand of the Creator, to a multitude of calamities which make him wretched during the whole course of his life. Nay, by an unfathomable decree, he must even in his tender and blooming age, and in his state of innocence, arduously struggle with numberless morbid affections, which continually threaten his life. For some subsequent years he is wretchedly harassed by a succession of diseases; and



no sooner is he freed from one, than he becomes subject to the noxious influence of another. This, therefore, is the period during which children most require the provident care of their parents. But in order that the affectionate solicitude of parents may be rewarded with success, it is necessary that they should know, not only how to preserve their children's health, but also how to restore it when impaired.

To attain this important object, I have thought it best to preface the classification of the principal diseases of children with some general observations, in illustration of the chief points of the theory which I have adopted, and with a statement of some practical results, in order to confirm my doctrine, which is entirely grounded upon the laws of animal physics. And to clear any doubt concerning the nature of the immediate cause from which all disorders generally proceed, and to show how one disorder may be distinguished from another, and, in case of urgent necessity, the remedy proper to be administered, I shall point out and explain physically, in a manner comprehensible to every understanding, the most general agents, from the detrimental action of which usually arise those numerous



phænomena that are observed in the morbid state of our organization.

Under the guidance of eminent men, friends of truth rather than of mere opinion, I learned to study nature, and convinced myself that, notwithstanding the great progress already made in medicine, this art is still far from embracing, in their full extent, all those truths which alone can insure the high consideration claimed for it by its votaries. I therefore felt myself under no obligation of blindly yielding to the opinions of others. In fact, I have observed in my practice, the constant rule of following the way pointed out by experience alone ; so that the present work is entirely founded upon the firm basis of observation and general success in the sick chamber, and consequently is proof against any theoretical reasoning, according to the opinion of Kirkland, who says, that “ a grain of experience is better than a book of opinion.”

The object of medicine is the cure of disease ; and consequently the chief concern of a writer upon it ought to be, to show how that object may be accomplished, by joining a clear and precise theory to the results of an exact observation.



In the medical art, in order that theory and practice may proceed hand in hand, and mutually afford each other the light necessary to investigate with physical certainty the various phænomena which mark a state of health or a state of illness, it is requisite to confine our researches to the laws of animal physics. It is by these means only that we can hope to ascertain satisfactorily what are really the causes of disorders, and how they may be removed, and to establish a certain and simple method of restoring health when impaired. We cannot deny that in every age many practitioners, guided by principles of philanthropy, have endeavoured to render the study of medicine less intricate, and have simplified at the same time the application of medicinal substances: but the rage for innovation continually brought forward those metaphysical conjectures which constitute medicine an abstract science, and, by means of numberless theories, rendered it the focus of errors, quarrels, and frauds.

Although the doctrine of the two diatheses (Brown's system) has reduced the practice of medicine to a greater degree of simplicity, yet it has not been on this account less prejudicial;



for besides being the source of new errors, filling the place of the old, it was owing to a false interpretation of it that the supporters of the doctrine of a contra-stimulus (under the appellation of excess of vigour and animation, increased excitement, and hypersthenic diathesis,—names all insignificant in good logic), have fallen into the habit of bleeding their patients to excess, and employing, as they still do, without restraint, a considerable variety of poisonous substances, such as bella donna, hemlock, aconite, distilled water of laurocerasus, hydrocyanic acid, hyoscyamus (henbane), muriate of barytes, iodine, arsenic, corrosive sublimate, and a thousand other preparations, which have no other effect than that of destroying the vital principle, instead of stopping the progress of illness as they pretend, in which, if they succeed, it is only by causing death. A celebrated practitioner (Clerk) observes, that errors of such a nature do not deserve indulgence, and the less, when physicians of great fame are not ashamed to follow the example of the empiric, in selling at a high price preparations of their own, under the specious title of nostrum ; showing therein more avidity for gain, than humanity for their fellow-crea-



tures : so that the ignorant, seduced by their fair promises, frequently lose, together with their money, their health, and sometimes their lives.

Although the numerous systems already existing afford us an evident and mortifying proof of the little aid they have brought to practice ; yet the system, entirely founded upon the laws of animal physics, may be considered as having contributed more than any other to it. I had already composed a treatise on children's diseases, when a medical book was published under the title of "The Essence of Maladies derived from the Proximate Cause\*," by Dr. Bucellati, the principles of which entirely agreed with my own practical observations. This reason, and some imperious political circumstances, prevented me at that time from publishing a work that would have elucidated principles which, though not blazoned with the pompous title of novelty, have hitherto been destitute of that order and clearness which are essentially necessary to an art that concerns the preservation of life. The severe criticism which followed the publication of the above-mentioned treatise, inspired me with

\* L'essenza delle Malattie desunta dalla Causa prossima.

the idea of re-editing it, freed from the defects I perceived in it, which consist not only of a frequent use of quibbles, and a satirical style too much used and even misapplied ; but more particularly of some contradictions and inconsistent allegations, which greatly obscure the real merit of the author, who has certainly made very important discoveries and worthy of a medical man. But the blemishes of his work are such as I think he would have avoided, had he not been harassed by the numerous obstacles which he encountered from professional men, more prone to censure blindly what is not their own, than to appreciate and encourage the endeavours of those who would free from the jargon of conjectures a science which touches the welfare of mankind, and put a stop to the tedious doubts which involve the mind of the physician in a labyrinth of errors more fatal to the human race than all the evils to which it is otherwise exposed.

Led by such reflections, I determined to impart to the public what may be in some way useful to them, by publishing a treatise on the principal diseases of children, founded upon the simple laws of animal physics ; and I have endeavoured,



to the best of my abilities, to render it free from the confusion and inconsistencies which are so numerous in the work above-mentioned, and which caused the useful truths contained in it to be rejected with contempt. In order that these truths may no longer be condemned to oblivion, I have arranged them with accuracy and in order, so as to serve as a guide in the definition of the diseases described, and favour my exposition of the results of my own practice, and of that of many eminent professional men. I have endeavoured, besides, to demonstrate by incontrovertible proofs, not only how we may discover with some degree of certainty the most frequent causes which generate the various phænomena that attend the different species and stages of illness, but also how the public may acquire an adequate idea of the positive means that may be employed with the greatest chance of success in the practice of the medical art.

Although the system of which I am about to give a general notion differs widely from the theory of most physicians, yet with regard to the practical part\*, I am confident that it is in ac-

\* In the course of this work I shall faithfully relate some successful cures which I have performed in this country, in

cordance with the maxims of the most able practitioners; a circumstance which appears to me of great importance, for the purpose of exhibiting the connection between the causes of disease and the means employed by all practitioners for

order to obviate the prejudice which has prevailed amongst the public, that foreign physicians cannot rightly understand the treatment of diseases in other countries than their own. Such an absurdity is certainly inexcusable in so distinguished a nation as the English. Wise and experienced physicians of every country know, that the chief attention of the practitioner must be directed not only to the nature, character, and degree of disorder of the animal œconomy, but also to the patient's constitution, habits, age, sex, manner of living, affections of the mind, place of abode, climate, &c.; and that in the administration of medicinal substances, no other consideration is needed, than that of the choice and the quantity, according to the state of the patient and other circumstances, and that of their suitableness to remove the cause of disease, assisting at the same time the efforts of nature for the recovery. The want of this necessary precaution in many physicians, has occasioned perpetual debates amongst them, and placed the study of medical art on mere hypothesis; different authors entertaining different opinions, as to the species, symptoms, and origin of morbid affections, as well as their peculiar treatment. Hence it is, that medicine, like a troubled sea, often overwhelms and confounds the practitioner in a flux and reflux of extravagant opinions, which make him uncertain what method to pursue, and what means to employ for the cure of disease, and subject the patient to a routine of treatment which usually terminates in death. Hence it comes to pass, that some theorists, proceeding from inconsequence to inconsequence, taking advantage of a name



removing them, without having recourse to abstract principles, which only plunge us in a chaos of conjectures.

If we consider this object with the philanthropy which ought to distinguish the true philosopher, we shall easily perceive how errors in physic have multiplied, and into what confusion this art has fallen, notwithstanding the intense study and strenuous efforts which have been devoted to free it from obscurity, to simplify it, and to establish its rank among the sciences which are no longer subject to the caprice of novelty and fashion. First of all, Cullen broached a system which almost entirely overthrew the humoral theory of the ancient physicians. His doctrine was confuted by Brown ; that of Brown by Rasori, who showed its defects. The followers of Hippocrates, the disciples of Paracelsus, Boerhaave, Stahl ; and among the moderns, Darwin, Pinel, Broussais, Tommasine, and several other

which they frequently owe to chance more than to real merit, deceive the credulity of the multitude, by boasting of certain vile prescriptions (although shamefully retained in the Pharmacopœias), containing numberless substances which are always useless if not dangerous, besides a great many poisonous preparations, which publicly, and with impunity, are employed, to the visible detriment and destruction of mankind.

authors of systems who succeeded one another,—did but deviate in their philosophical researches from the principal object of them,—that of ascertaining with precision the means of preserving and restoring health.

It appears, that through a fatal blindness this branch of human knowledge is condemned to be a mark for the ravings of fancy, and the subject of perpetual dissensions. Beings have been multiplied without necessity ; causes confounded with effects, and effects with causes ; diseases, which never had existence, have been created ; with an imposing air of authority, cures attributed to remedies of no efficacy ; things beyond our comprehension explained ;—all involved in mystery. But the worst is, that such medical extravagancies end with consigning the unhappy patient to the grave ; so that the cold earth seals the manifold mistakes of the physician, who, from the high regions of illusion signs with impunity the decrees of death.

But the public ought to be persuaded that all conjectures should be banished from medicine, which can be well founded only upon anatomy and animal physics. Metaphysics are no part of the proper knowledge of a physician, who



never should soar into regions beyond the reach of the senses. In order therefore to judge rightly of the matter which we intend to treat of, we must not swerve in the least from the circumscribed limits of human understanding, and then only shall we acquire a perfect idea of the useful physical truths which regard the medical art. In our days,—wherein wise and well-directed laws have illustrated and strengthened the bonds of society, wherein the arts have made real progress, and true philosophy triumphs in all civilized nations,—humanity imperiously demands that medicine should occupy its proper rank, and be practised according to simple, reasonable, and fixed principles: the monstrous productions of empiricism will then certainly have an end.

Although it is generally believed that the medical art has attained the highest degree of perfection, and that we have arrived at a complete knowledge of the means best suited to the treatment of every disease, we ought rather to confess that in spite of all the efforts that have been made to further its real progress, there is perhaps no art which has been so little improved.

I shall never cease to admire those great geniuses who assiduously endeavoured to carry the

light of discovery into the most secret recesses of Nature, forcing her, as it were, to yield to the efforts of medical philanthropy. But considering the organization and laws to which our body is subjected, and the extreme difference which exists between the manipulation of chemical substances in artificial vessels, and the experiments made upon organs endued with vitality, and other principles exceedingly difficult to be conceived by those who make the experiments, I could have wished that they had rather sought to determine, according to physical principles, the real nature of those substances which, becoming noxious, have the power of bringing our body into that state of alteration which constitutes disease ; and then, with a perfect knowledge of the cause, to prevent its injurious progress, by applying simple medicines of a defined action, instead of making a display of a vast medley of chemical and pharmaceutical preparations, either useless or very dangerous to be administered even by the most skilful practitioners.

According to the ideas which we have at the present time of anatomy and physical science, it would be an abandonment of good sense to seek truth in the region of fancy. If we attentively



examine our organized frame, and the close connection of all the functions of the animal œconomy, we shall then know whether the numerous diseases which are considered as essential, are truly so, and whether the effects assigned to a cause, verily belong to it or not.

But the public should not believe that to do this, it is necessary to have a thorough knowledge of medicine, as is erroneously and generally thought ; for the physical truths necessary to be known, in order to direct our judgement in matter of fact, are neither numerous nor difficult to be understood ; those which are obscure and incomprehensible to the many, being so likewise, in spite of all their efforts, to the most learned, and those who pretend to teach others\*.

There is scarcely any person who, being indisposed, will not try to cure himself, either by abstaining from such or such food, or by using some substance which he thinks likely to do him good. But if the illness be not violent, it is not till after he has found all the means suggested

\* The general notions which I intend to give the public will not preclude the necessity of applying to an eminent practitioner in case of disorders of any violence, if it were only to assure themselves of the proper application of the medicines.

by common sense useless, that in general he applies to a medical man. In fact, abstinence and aqueous draughts commonly suffice to stop disorders which might have become dangerous. When the malady has increased, he sends to the physician ; but so difficult is it to make choice of a good one, that very often the remedy prescribed is worse than the disease itself.

Addressing myself to the public, and entertaining for them all the regard which an honest and reasonable man ought to have for his fellow-creatures, I feel myself bound to caution them against being deceived by those erroneous systems, which they cannot comprehend, on the important object of health, in order that every parent may know how to preserve that of his children, and retrieve it when impaired, which constitutes the sole object of this short treatise.

But the preservation of children's health requires not only a knowledge of the causes which mostly occasion the derangement of it, but also of those from which diseases proceed. I shall consider both, and also the means of preventing them ; and I shall more particularly explain those diseases to which children are liable.

It is not to be concealed, that the errors of



medicine have such an effect upon a great number of diseases, that without the former the latter would be much fewer. It would be useless to increase the number of medical works, were those already before the public really satisfactory ; for we have particular treatises, not only upon the diseases of each class of the community, but also upon every disease separately. It would be likewise useless to assert, that the errors of medicine have great influence upon the diseases of mankind, if we did not at the same time show how these errors may contribute to their development.

It is on this account that parents ought to be acquainted with the proper means of curing their children when they are ill. And with this view I have endeavoured in the following pages to explain the method of distinguishing and treating the diseases of children in such a manner, that in case of emergency, or want of confidence in the medical attendant, means may be afforded of avoiding the risk of becoming the innocent cause of their death.

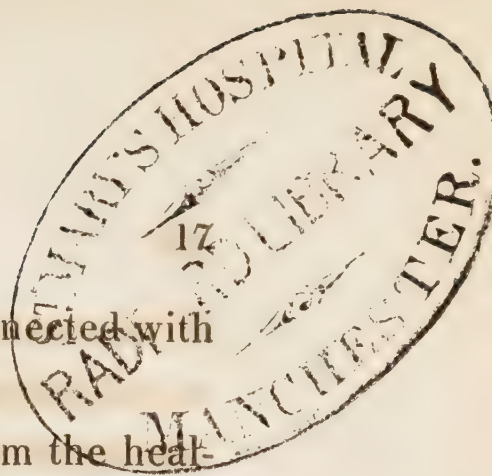
A wise physician, who prefers the general welfare to his personal interest, feels a great satisfaction in imparting to the public all the use-

## INTRODUCTION.

ful truths which are so intimately connected with the life of man.

Medical science differs widely from the healing art. The object of the former is the history of physic, the knowledge of the most celebrated authors, their opinions, systems, practice, and the results; and of all the makers of useful discoveries, and all the different branches of science connected with physic, &c.; an object that requires the reading of an immense number of volumes, for which life is too short. On the contrary, the object of the healing art is both to preserve and to restore health; an art extremely simple, which nature has sufficiently impressed on every animal (some cases excepted, wherein the mediation of a skilful hand becomes necessary), and such as may be easily attained by any man of ordinary capacity, in consequence of the increased knowledge of anatomy and animal physics within these few years.

When we adopt the manifold divisions set forth in the writings of medical authors, diseases present an obstacle very difficult to be overcome; for the infinite species of characters by which they are distinguished from each other, render them hard to be discriminated. But if we judge





of the various diseases with a right knowledge of the cause, we shall clearly see that their number is not so great as is commonly believed ; and without the least intention of diminishing the merit of those eminent men who have a claim upon our esteem and gratitude, we shall plainly show that they have mistaken some merely accidental variations for so many essential maladies\*.

\* From the time that I was first honoured with public confidence, I entered the army in the capacity of physician and surgeon. During the several campaigns that I made in Germany, Spain, and Italy, I had occasion to observe, in consequence of the great hardships and disastrous circumstances to which the troops were sometimes exposed, how simply diseases could be cured, and to convince myself that the number of diseases is not nearly so great as appears in clinical medicine.

In the year 1807, fevers, under various aspects (many of which showed a malignant and severe character), appeared among the besiegers of Stralsund, a city of Germany, on the Baltic Sea ; but they proved neither fatal nor protracted, because they were treated in a simple manner, and were not considered as fevers *sui generis*, or epidemical, requiring a peculiar and complicated method of treatment, as some physicians pretended.

In the heat of the war for the independence of Spain, in 1808, 1809, and following years, the difficulty of communication with France, and the consumption of the necessary medicines wherewith every regiment ought to be provided, obliged the physicians and surgeons of the army to make use of the native vegetable productions for checking the maladies occasioned by unwholesome and innutritious diet, insalu-

Illness is a morbid effect : if it be an effect, it must have a cause ; and to remove the former we must first remove the latter. Whatever be the morbid appearance under which it shows itself to our senses, it is certain that we shall never remove the effect without removing the cause ; and for this reason it is clear that all morbid variations which may give different aspects to a disease, are merely accidental, and of very little or no consequence, being constantly effects ari-

trious soil, continual labour and fatigue, and the horror which so cruel a war inspired. The chief superintendence of the moveable hospitals of the Italian corps in the neighbourhood of Girona was intrusted to me, when that city of Catalonia was closely besieged. Among two thousand patients and more, attacked by the fever, whom I attended, I never observed the change of one species of fever into another, as is said by authors in general, and as they pretended to show me in my clinical studies. I can give no other reason for this, than that I treated these fevers with simple remedies, solely intended to free the alimentary canal from all heterogeneous substances, and with that practical prudence which favours the natural course of the animal œconomy, without doing violence to its important functions.

Decoction of lupines, oak bark, and cork, were the only potions wherewith the sick could be furnished ; and these were allowed them in order to subdue the fever in those cases wherein, from weakness of constitution, it did not yield to the action of emetical evacuants. If some few died, it was only in consequence of errors in diet privately committed, either during the abatement of the illness, or during conva-



sing from one and the same cause. There is no malady which does not appear with some morbid effects, whereof itself is the cause. These effects are what we call symptoms ; and symptoms

lescence ; the constitution then being, on account of its weakness, violently thrown into a state of extreme disorder, followed by immediate death.

A petechial fever which appeared in Valenza (Piedmont), my native country, in 1815, made no progress, and was attended with no fatal consequences : on the contrary, the patients quickly recovered, on account of the precautions unanimously taken by the physicians of the place, who treated it as a gastric fever. In Lumellina, Montferrato, and other provinces of Piedmont, where the physicians considered it as a peculiar and epidemic disease, every one following his own method which he thought adapted to remove it,—the petechial fever was destructive, and even some medical men were victims of their own capricious systems.

The petechial fever becomes contagious only when, in its greatest increase, there arise from the sick such corrupted effluvia as to infect the air and propagate the malady around.

The sudden appearance of the petechial ~~fever~~ in some individuals, who are not sensible of any illness, is an evident proof that this disorder is a mere accidental modification of no consequence. In the beginning of 1808, after the peace of Tilsit, during the return of the army to Italy through the mountains of the Tyrol, whilst the season was very severe, the greater part of the soldiers of the regiment of chasseur cavalry, to which I belonged, were suddenly covered with a petechial eruption all over their bodies ; yet, with a few exceptions, no one complained of any other uneasy sensation than that of weakness,—a circumstance which I have frequently observed, particularly among the inhabitants of marshes in the north of Italy.

are not so many individual maladies, as every one may perceive, even without any knowledge of the medical art. Those therefore who have called malady a morbid effect, and symptoms so many other effects which accompany it, had no adequate idea of the phænomena upon which they pronounced such an opinion ; and it was in consequence of this error that they gave the appellation of diseases to a great number of symptoms, as will appear in the course of this work.

There is not the least doubt that a malady is the cause of all these morbid effects known by the name of symptoms ; so that however violent these effects may be, they ought never to be considered as maladies essential in themselves, because they are at most but secondary diseases, which will never abate, if the principal malady, which is the cause of them, be not removed. This is so true, that every practitioner always suits his treatment to the malady that he considers the principal ; although very frequently the patient is not aware of having any other than the symptoms which torment him. Fever, for example, is frequently attended with such painful head-ache, that the patient seeks to relieve this alone, and does not perceive the existence



of all the other symptoms which characterize the principal malady : but the physician, aware that this pain is an effect of the fever, directs his measures against the latter, because on the abatement of the fever, the head-ache will cease.

But the principal malady itself is nothing more than an effect of a cause, without which it could not exist, and without the removal of which it cannot be removed. In order to remove it we must know it; and this is another difficulty, which, according to the general opinion, seems to be the most insurmountable of all, in consequence of the numerous causes assigned to the development of even a simple malady. But the difficulty is not so great, nor to attain this object is there any necessity for such long study and practice as is commonly believed. Medical men have been mistaken, not only in supposing that there are as many essential diseases as there are morbid modifications, which have been erroneously considered as such by the ancient fathers of medicine; but also in regarding, as so many causes of disease, all those infinite combinations which may have some direct or indirect influence in their development.

If we accurately examine in an analytical me-

thod, all the effects which constitute diseases and their symptoms, we shall very easily be able, by the clear light of animal physics, to distinguish among the numerous causes, those which have an immediate influence on the progress of a disorder, from those which have only contributed to its development. These, it must be observed, are many ; but they do not all require the attention of the physician, because most of them (after the development of the malady) have no longer any influence upon it\* ; indeed, they very seldom have any connection with all the morbid effects which constitute the malady, and it would be quite useless to take notice of them ; because, although we could exactly distinguish

\* A wound, for example, will attract the attention of the wounded man, that of the physician, and that of the magistrate. Each of them will assign a cause, without which the wound could not exist, but each a different one. The wounded man considers as the cause the weapon with which the wound has been made ; the magistrate looks upon the assailant as its cause ; the physician, regardless of the weapon and the assailant (these causes being unconnected with the cure), is attentive only to the solution of continuity, as being the cause which he must remove in order to heal the patient, the important object of his profession ; the other causes, namely, the assailant and the weapon, being of no consequence to him, because they have not the least connection with the restoration of the patient's health }



them from one another, still they would not guide us in the treatment, which must be directed against the real causes, the only proper subject of it, as will be clearly shown hereafter.

The use of medicines is likewise attended with great difficulty to the public, if it should seem that in order to give the proper dose, a perfect knowledge is requisite of the various constitutions of patients, and of the virtues of every medicinal substance, such as plants, and all the chemical and pharmaceutical preparations.

The public may be assured that all this knowledge is not necessary for the due administration of those few medicines which are really of use ; and that those who study the *materia medica* only learn how our predecessors employed such medicines, to which they very frequently ascribed effects, which were entirely owing to the animal œconomy ; so that after all, they become acquainted with more errors than truths.

Hence it clearly appears how important it is for every parent to endeavour to acquire a sufficient knowledge of the simple means of curing his children, together with that of the causes of their complaints, while still of that age in which domestic care and medical art must go hand in

hand ; and so much the more, since there is scarcely a parent, who, when his children are ill, does not assume the right of administering to them some medicines suggested by common experience ; and very frequently, too, without informing the medical attendant.

It is chiefly in infancy that the assistance of medical art is requisite ; and in order that it may be salutary, the means employed must be chosen with a thorough knowledge of the cause ; and all those absurd practices which have originated in vague conjecture, must be entirely banished, out of regard to the lives of children, which otherwise, in consequence of medical errors, they are too often doomed to lead in shame, deformity, and suffering.

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ARTICLE I.—*Definition and Division of Diseases in general.*

IN every science which has made real progress, it has been, in the first place, requisite to give exact definitions of the terms connected with it ; so that we may, from the definitions



themselves, form an adequate idea of the meaning of these terms ; otherwise the multiplicity of the objects would have required a tedious profusion of words, which would have tended only to perplex the mind. Physic would have also made real progress, if many great men, who cultivated this science according to the important principles of true logic, had not been misled by their servile attachment to the authority of illustrious names. The Latin word *morbus*, which is translated by the words Malady, Disease, Illness, &c., has been originally applied to the alterations\* in the physical organization of animal and vegetable beings, both with regard to the genera and the species of these alterations ; and for this reason it has never been defined with precision. We have always been talking of disease, without ever knowing what we exactly meant by that name ; so that the confusion and difference of opinion which have divided professional men on this point, have constantly been the principal obstacles to the real progress of medical art.

\*The words Alteration, Alterability, Alterant, Altered, &c. made use of in this work, denote that state of disorder which shows a derangement, both in the functions of the animal œconomy and in our organization, that is to say, in the health.

All the alterations of the animal œconomy which afflict an individual, are in his mind so many diseases ; for he naturally considers as a malady, any morbid effect which occasions him uneasiness. But that which is attended with worse consequences, is, that even some professional men agree with the vulgar as to the multiplicity of diseases, in order, we may suppose, to obtain a greater degree of importance for their art. But the cautious physician generally finds in these manifold disorders, one malady only, and considers all the other morbid effects as so many distinct symptoms.

Those who first made a distinction between diseases and their symptoms, had no precise notions of the various morbific phænomena ; and from this want of precision, they considered many symptoms, or secondary effects, as essential diseases, to which were subsequently given peculiar names, taken from some constant appearances, from the seat of the alterations, and even from the extension and degree of violence of the alterations themselves. Physicians embraced these hypothetical principles, and successively spread the manifold errors (which are frequently to be found in their science) among



the multitude, who received them as so many truths. This is the reason why all the insignificant names given to maladies have come down to us, and are still held in such veneration, that the pronouncing of them alone will oftentimes suffice to obtain credit and regard.

It is certain that, if we were to allow the necessity of knowing so many names, and of distinguishing all accidental differences as so many essential variations, the thorough knowledge of diseases would be extremely difficult; so that, notwithstanding all our efforts, on account of the slight variations perceivable at every moment in diseases, we might expect to see every day one malady succeeding another. And, indeed, this is precisely the case with many; for the different periods of a disease in its progress, are commonly considered as so many different distempers; so that an ephemera (a fever that terminates in one day) becomes a tertian; the tertian changes into a remittent; the remittent into a petechial, or a delirium, &c. An inflammatory fever will likewise become an asthma, or a dropsy of the chest, a low nervous fever, a tabes, or consumption, and so on; as we observe to occur very frequently in modern practice.

But we can incontrovertibly prove the inconsistency of all these names and definitions: for, in consequence of the progress of anatomy and animal physics, we positively know that there is not a single disease, which does not arise from a derangement of the animal œconomy; and that in it alone exists the proximate cause of all those different morbid effects, which constitute the disease.

Under the appellation of proximate cause, we must understand that cause which immediately constitutes the effect, without which the effect could not exist; and with the removal of which, the effect disappears. As long as the animal œconomy performs all its functions in its natural order, we feel that ease, and that calm existence, which is called health: on the contrary, whenever we feel ourselves affected with any uneasiness, we must infer that our animal œconomy is, in some part, altered. Then, since the derangement of it is that which constitutes the malady under which we labour, it necessarily follows, that the proximate cause (whatever it be) of this state of illness, consists in the same derangement; because, as we have already said, we should have otherwise enjoyed a good state of



health. This truth is so evident, that it does not require any knowledge of the medical art for its comprehension.

Illness, then, is a derangement of the animal œconomy. The living animal œconomy comprehends the organization, and its functions. The organization is kept alive by a vital, invisible, and incorruptible principle, the existence of which can be ascertained only by inductive reasoning. This principle being indestructible, is not susceptible of alteration, and cannot be the cause of malady ; it is not, therefore, the province of the art, which is devoted to preserve and restore health, to enter into any metaphysical discussion on this point. Our understanding is so circumscribed, that we cannot even determine whether our organization be the cause of our functions, or our functions that of our organization. What we know is, that these things combined together, constitute what we call life ; that from the perfect harmony of the whole, results health ; and that from the greater or less alteration of any part of this whole, results a morbid or preternatural state, which we call malady ; and these are the circumstances which we ought most diligently to observe.

We may then reduce all maladies to the three following general alterations ; Alteration of the Functions, Alteration of the Organization, Alteration of the Functions and the Organization together. In these three different species of alterations we recognise the cause of all diseases to which we are subject. But these disorders are only morbid or preternatural effects, which proceed from a cause without which they could not exist ; because animal organization is governed by its peculiar laws, which always tend to maintain it in a state of perfect health during the different periods of life : and since all the maladies (known under so many different appellations) are but effects proceeding from these alterations, we must consequently conclude that all maladies are but secondary and successive effects of those causes which naturally tend to produce such defects, and therefore must be considered as mere accidental differences.

Every species of fever if not attended by peculiar symptoms, which indicate also a derangement in the organization, always consists in the alteration of the functions. The derangement of the organization alone cannot have any other cause than external violence, exercising



upon it an immediate injurious influence: such are all kinds of wounds, in consequence of which the functions themselves may also be altered. All other diseases are effects of altered functions and organization together, and are always secondary, that is, morbid processes, which for the most part could be easily obviated\*.

Hence it is easy to judge whether the essential diseases are so numerous as they have been to this day considered, and whether it is so important to know the manifold appellations applied to them, since they are for the most part merely various symptoms of the morbid state of the animal œconomy. The knowledge of these accidental variations may be useful, in order to predict the progression of the malady; a knowledge in which Hippocrates excelled; and in which also many excellent practitioners of this age have

\* Whenever from the beginning a proper method of cure is applied, we shall undoubtedly, with a true knowledge of the cause, subdue all the consequences of the injurious action produced by the heterogeneous substances in the alimentary canal; and thus disorders will neither increase nor degenerate into others, which is commonly believed to be the case. I say commonly; for these new disorders as they are called, are only more alarming and complicated symptoms and effects of the primitive disorders rising to a higher degree of intensity.

distinguished themselves. But whatever may be the advantage resulting from the foreseeing at an early period the progression of a malady, still it cannot be the object to which physicians ought to direct their principal attention.

The object of medical art is to restore health : and since this object is entirely referable to the laws of organization, we must endeavour to remove the cause which affects the functions of the animal œconomy, from whence proceed all the successive disorders. But to remove this cause, we must know it ; and in order to attain this knowledge, instead of indulging ourselves in fancy, or in the reading of systems grounded upon conjectures, we ought carefully to confine our researches within the circle of the animal œconomy, where we shall easily find the object of them, provided we use the care which its importance requires.





ARTICLE II.—*Of Morbific Causes in general.*

NATURE has formed all her works in such perfection, that we cannot but admire the infinite wisdom of the Almighty, on whose power depends the individual conservation and the perpetuity of the human species. In consequence of this, we must acknowledge, that there is neither good nor evil in nature ; for the variation of her productions is according to natural order, and good and evil only relate to the things produced. Organized beings for the most part are reproduced and maintained alive only by their mutual destruction, the substance of the one serving for the support of the other. The strongest destroys the weakest: and without this perpetual transformation, every living being would prosperously complete his career to the latest period which nature has prescribed to him.

Man, that forms so conspicuous a portion of the wonders which constitute the grand machinery of the universe, is subject to the same vicissitudes as other organized living beings.

Endowed by nature with strength and skill, his means of defence are superior to those of other animals ; and consequently he is not liable to become their prey, as they become his. But can he expect that his foresight will enable him to escape every attack of those animals which attempt his destruction? Shall he, from a presumptuous vanity, accuse the element which he breathes, the variations of the seasons to which he is indebted for his sustenance, the mechanism of his body, the principle which maintains life, or the materials themselves necessary for his preservation, as so many causes of his evils? It is himself who is to blame as the cause of all his miseries, by indulging in luxury and sensual pleasures; and more than all, by his rash presumption in usurping the rights of nature; so that the very means which he employs for the restoration of his injured health, only tend to impair it still more.

Nature would never deviate from her laws, if there were no adequate causes for such a deviation. In deviating from the laws of organization, a preternatural state, or state of malady, is produced. The causes of this deviation constitute what we call *Morbific Causes*, many of



which may contribute to the production of diseases; but there are very few which have an absolute power over the animal œconomy. Those which possess an absolute power, such as exterior injuries and poisons, have very slightly attracted the attention of medical men. On the contrary, those of a relative power have plunged philosophers of every age into the most profound researches. If several individuals are exposed to the action of the same cause, the effects produced are not the same. In some individuals this action will be followed by no perceptible consequences; in others, it will be injurious, but subject to such variety, that the morbid results will be totally different from each other. Yet these are the varieties which a physician ought most frequently to investigate in almost all the diseases proceeding from internal causes, and which will present insuperable difficulties to the medical art; for their mode of acting upon the human body seems to be as difficult to be known as the physiology of the nervous system, which will probably never be ascertained by human sagacity.

All those morbid forms, to which we give so many different names, and which we consider as

so many particular diseases, are, as I have already said, merely effects of some alterations in the animal œconomy, and consequently offer to our senses accidental differences only, upon which medicine has very seldom any direct influence.

If the morbid state of the animal œconomy is manifested either by one morbid effect only, or by many at the same time, the reason is, that all constitutions are not equally predisposed, either to the injurious action of the alterant causes, or to the development of the same morbid effects. But if we were to admit the same predisposition in all constitutions, still this predisposition may differ in degree, either as it regards the power of the alterant cause, or the violence with which the morbid effects are developed.

But men's constitutions are neither always alterable, nor always insensible to the action of a determined cause. In fact, a robust man habituated to the use of spirituous liquors, finds no better restorative to his strength, when in a state of languor, than a glass of good wine or other liquor of a similar kind. But if through an illness his constitution has become weak, he endangers his life by taking, when in a state of con-



valescence, the same quantity of liquors, for they would now be highly injurious.

The liability of the human constitution to disorder, is in proportion to the degree of weakness of the body ; a child therefore is more susceptible than a youth, this latter than an adult, and a woman generally more susceptible than a man. Hence, many are the causes which may alter children's constitutions in their early infancy, which would have no injurious influence on the constitutions of men.

All the ancient physicians have observed a variety of effects produced by the action of the same cause, and have only accounted for it by saying, that it depended on the difference of constitutions. Yet none of them have established any positive reason for this variation, which, they say, has always been observed in the constitutions of men. It was necessary that this should be known, in order to explain this phænomenon ; and for this very reason it has never been explained, but on hypothetical and erroneous principles.

The diversity of constitutions consists in their different degrees of alterability ; so that there

are as many constitutions, as there are periods in a man's life. An equal uniformity of constitutions being even granted, still we find a great variety of them, when we consider man in infancy, youth, puberty, virility, old age, and decrepitude; and also in regard to sex : for which reason, the same constitutions may be considerably altered every moment, by the numberless causes acting upon them, which were formerly innocuous to them,—a circumstance worthy of great attention.

These causes have always been confounded with alterant causes, for they are generally those, in consequence of which nearly all diseases arise ; and this is the reason why the causes of illness seem so many, while in reality they are very few. Let us reflect upon this circumstance with attention, and we shall find it most evident. A person in convalescence, or a woman in child-bed, both in a state of weakness, are of such alterable constitution, that the least morsel of bread, or smallest quantity of wine, will frequently occasion the most violent morbid effects. The least offensive smell, a noise, any news of consequence, may cause an important derangement in the animal œconomy. But all



such incidents become injurious in consequence only of the previous tendency of the individuals to be affected by the injurious agency of these causes ; and it is precisely that which we must understand by predisposition.

The circulation of the blood is the principal function of life, upon which all the other functions depend ; and we may say more precisely, that it is the cause of all the others ; for the cessation of this function is the cessation of life ; death being nothing more, according to the principles of animal physics, than the cessation of the functions of the animal œconomy. This truth being acknowledged, it is easy to comprehend that the derangement of this most important function will be attended with the alteration of all the others. The disorders, therefore, which we observe under so many different characters, are only effects arising from the altered circulation of the blood, which we shall never subdue, if we do not direct the method of cure towards that which is, in fact, the principal disease.

The circulation is extremely alterable, in consequence of the great connection existing between the heart and the brain ; and a single

sensation somewhat acute or protracted, is sufficient to alter this function\*. But that which most frequently alters it, is the sympathy of the alimentary canal, by which the substances (even the most homogeneous) introduced into the stomach, constantly alter to a greater or less degree this function; so that all practitioners say, that we ought not to judge of the state of a patient from his pulse after he has taken any food, because then it is more or less altered.

Every practitioner will recommend to his patients a regular diet, both during illness and convalescence, because experience, our best teacher, uniformly shows us, that in consequence of an irregular diet diseases become worse, or return. This fact is a sufficient proof, that heterogeneous substances (by which we mean substances which are not proportioned to the digestive powers,) introduced into the stomach, may be the cause of all maladies.

Although we must allow that great reputation is commonly preferred to experience, yet all physicians agree in considering gastric, bilious,

\* A young girl, for example, who hears an immodest expression, instantly blushes; which is only an effect of an altered circulation of the blood.



and *verminous* fevers, as exclusively produced by the presence of heterogeneous substances in the alimentary canal ; and these are, very probably, the only diseases the true cause of which is known. There is no disease to which, some time or other, this same cause has not been assigned.

The gastric canal, that is, the viscera into which we introduce the substances necessary to our conservation, and which comprehends the stomach and intestines, is always in close contact with substances which, although homogeneous to the digestive powers, are liable, as I have already said, to alter, in a great measure, the circulation, the principal function of organic life ; and their alterant power will continue, until by digestion they lose their heterogeneous qualities, and assume homogeneous ones.

After weaning, man becomes omnivorous, that is to say, he takes animal and vegetable food at the same time ; but there is no one species of alimentary substance, which may be said to be either homogeneous to every one, or constantly so. One person, for example, will relish food which will be nauseous and indigestible to another ; and he will like today, what he will

dislike tomorrow. The choice of food, when not made by the olfactory organ and the sense of taste (which are both destined to this purpose by nature), would require an exact knowledge of the digestive powers: but we are not acquainted with them; and we consequently introduce into our stomachs, substances totally indigestible, although nature at the same time does not reject them, because they are combined with other substances which disguise them to the taste.

We often introduce into our stomachs, substances not only indigestible, liable to acquire new injurious qualities, and by their protracted stimulating impulse greatly to alter the circulation, but even capable of becoming poisons of such a nature, as to affect the very organization of the gastric canal. The frequent pains of the stomach and bowels, diarrhœas, dysenteries, and colics, are incontrovertible proofs of this, agreed upon by the best professional men. Besides, the alimentary canal contains a great quantity of insects, for whose habitation nature has disposed our organs, and which she has allowed to feed, live, and multiply upon the



food we take, upon our digestion, and even upon our own animal substance\*.

It is not what we eat, but what we digest, that nourishes ; and every time we introduce into our stomachs, substances either analogous or disproportioned to our digestive powers, we always commit an intemperance which must alter, in some degree, the animal œconomy, and is even liable to produce disease. Besides, the causes which may alter the digestive functions are many ; and upon this subject the celebrated

\* We must observe, that there is no viscus, no part of our body, in which worms have not been occasionally found ; and so many are their different species, that their classification has been infinitely multiplied by medical writers. Independently of the different sympathetic disorders of the brain, arising from the tickling or irritation produced by the gnawing of worms in the mucous membrane of the alimentary canal, experience has clearly demonstrated, that sometimes those severe head-aches, which render the patients frantic and raging, and even occasion death, exclusively proceed from the immediate action of worms settled in the brain or in the frontal sinus. The circumstance of a worm, four inches long, issuing with the blood from a vein under bleeding, is certainly very surprising ; but the case of a woman lately dead in this country, who had been for a length of time cruelly tormented with an acute pain at the heart, in which was found a worm an inch long, and of a wide and flat shape, is still more unaccountable.

School of Salerno left very important and useful maxims, founded upon experience and the observations of many physicians of different æras. They agree in this point, that we ought to abstain from any mental labour or application immediately after our meals, because the labour of the mind has been observed to be detrimental to digestion. Some philosophers have said on this subject, that during the time the mind is intensely applied to any object, the soul, thoroughly intent on this, neglects the other parts of the body committed to her care ; and the stomach, deprived of its power so necessary to perform the digestive functions, suspends its important office : on the other hand, violent exertion of body too much accelerates these same functions.

But if we confine our researches to the phænomena of our animal nature, we shall very probably be able to explain this circumstance. It is a physical property of the living organization, to fall into relaxation after having been fatigued ; for by fatiguing ourselves, we always make a greater waste of substance. This waste occasions to the body a decay of strength, which must be repaired by rest, and by daily introducing into the laboratory of digestion, what



is necessary to supply to nature her continual losses. The act of meditation exhausts the brain, and consequently weakens it. Its blood-vessels, being thus weakened, become more distended by the impulse of the blood, which is more intense after our meals than at other times, and produces upon this organ a certain pressure, which, by diminishing the action of the nerves upon the various parts of the body, occasions a general exhaustion of strength. So great is sometimes this pressure, that the organs of sense fall into a state of torpor, so that a tendency to sleep is very frequently obliges us to allow the mind the rest which it necessarily requires. And, indeed, it occasionally happens, that after some hours of intense application the extremities of our limbs are become stiff with cold, without our having perceived it; so that we can scarcely stand upon our feet.

The state of weakness to which our bodies are reduced by long meditation, renders the food oppressive, which otherwise would have been proportioned to the digestive powers; and this is precisely the way by which we alter the digestive functions. This explanation shows likewise, that this function may not only be altered

by the application of the mind, but also by all the causes which are liable to debilitate the body; and consequently, that all weakening causes are, at the same time, so many predisposing causes; that is to say, liable to render the animal œconomy alterable, even by the action of substances otherwise the most analogous, and proportioned to the digestive powers. It clearly shows that we ought not to consider as causes of disease, direct intemperances only, *i. e.* excess in eating and drinking; but also indirect, *i. e.* the subtraction of any part of the strength, which should be employed in performing the digestion of the substances contained in the stomach; which intemperances, although they have never been considered as such, are the most frequent and common of those generally committed by men, without their being aware of it. But if substances the most homogeneous and proportioned to the powers of the alimentary canal, and to the various constitutions, may become injurious, whenever our constitutions are brought by any weakening cause to a certain degree of disorder, we must expect to see the same effects in regard to worms. There are many whose intestinal organs contain those troublesome guests,



without feeling any uneasiness which might positively be said to proceed from their pernicious influence ; at least, so it is generally thought. And this, indeed, may sometimes happen : for we may expose ourselves to the action of causes much more injurious than worms, without any bad consequence. But, on the other hand, we must not think that this powerful cause is always innoxious, even in individuals apparently healthy. If we attentively consider the various cases, we shall find, that the action of a cold wind, a sudden change of seasons, an obstruction of perspiration, grief, fright, the moistness of the air, heat, cold, and many unexpected causes, liable to promote a great number of little diseases, as rheums, costiveness, cold, flatulence, coughs, &c., act no otherwise than by bringing the constitution to a certain degree of debility, and predisposing to the pernicious action of indigestible and degenerate substances, or worms contained in the alimentary organs ; for which reason we ought to consider them as mere predisposing causes of diseases. If we distinguish with the necessary precision the effects arising from one cause, from those arising from another, without which humanity will always be condemned to

the melancholy consequences of the most fatal errors, we shall find that all the causes from which the different diseases arise, cannot act otherwise.

Among the substances which may be administered to patients with advantage, there is no stimulating, no weakening, no heating, no cooling remedy, which has an absolute power. Strength and vigour, or that state in which a person can easily perform all the actions of which he ought to be capable, are effects of a well-formed organization, and constitute health. But weakness is always an effect of some alteration of the animal œconomy, and always proceeds from deficiency of substance. The substances, therefore, which are proper to supply in the animal œconomy this deficiency, and to remove the alterant cause, must be considered as valuable corroboratives. Those agents, on the contrary, which are liable to alter the animal œconomy, diminish the animal substance, and disturb the functions of the organization, are all of a debilitating nature. Cold, dampness (by which the warmth necessary to organization is carried away, or the glutinous substance requisite to the cohesive power of the organic particles is mollified), become weakening



causes. Grief, fatigue, wine, spirituous liquors, food (by the abuse of which the circulation is altered and the waste of animal substance is increased), are also weakening agents. The same may be observed of abstinence from food, losses of blood, purulent runnings from wounds and ulcers, and, finally, all kinds of losses.

In order not to confound the causes with each other, and not to ascribe the effects of alterant causes to predisposing ones, we must distinguish them, so as to have an adequate idea of them, and regulate the method of cure accordingly.

All the diseases which are described by practitioners as peculiar, and consequently classified under so many different appellations,—as rheums, rheumatisms, cold, sciatica, gout, colic, cardialgy (heartburn), hysterics, hypochondriasis (low spirits), cephalæa (a disease of the brain), obstructions, scrophula,—are but so many accidental morbid modifications, symptoms, and consequences of alterations of the animal œconomy; all which (except convulsions,) are, like fevers, for the most part effects arising from the altered circulation of the blood. This truth being granted, it necessarily follows, that the cause of all these disorders is the same which alters the circu-

lation : when, therefore, we shall have become perfectly acquainted with this cause, we may justly conclude, that we have found the real cause of all other disorders, which, as we have repeatedly said, are only secondary.

There are always in the digestive organs some heterogeneous substances, which come in contact with the numerous nerves which are spread over these organs. These substances may vary infinitely in quantity and quality, in consequence of which their stimulating power must also vary. Now according to the observations of learned physicians, we know that these substances are liable to alter the circulation, and keep it in this state in various degrees of violence, to produce colic by distending forcibly a more or less considerable part of the intestinal tube, and even to corrode its membranes and tear them, acting like poisons. But if these substances, so variable in themselves, be the cause of fever and of a great many other morbid effects, as is ascertained from the concurring observations of all physicians, why should we look for other causes than this, when the fever appears ?



The bitter taste, the thick fur of the tongue, offensive eructations, want of appetite, vomiting, a sensation of weight in the stomach, aversion to every kind of food, dilatation of the pupils, itching of the nose, &c.,—are, according to the opinion of medical writers, the most ordinary symptoms by which we infer the existence of the morbid stimulus, either originating from worms or from some noxious substances in the alimentary canal. Then, if fever and many other morbid effects may proceed from worms or some noxious substances in the gastric organs, (which is undeniable,) it clearly appears that fever and all its consequences are in general merely symptoms and effects of injurious substances existing in these organs. In them we have a cause capable by itself of greatly altering the circulation, whenever the constitution is to a certain degree affected by weakening causes: and we have, at the same time, one of the most weakening causes in these very substances; because by altering the digestive functions, they deprive nature of the means of supplying by food her daily losses: and by altering the circulation, they become a cause of a still further waste of animal substance. These

substances act at the same time as alterant and predisposing causes; and this is the reason why an illness makes such rapid progress when neglected, or treated by a debilitating method. And if under such circumstances inflammation appears, it cannot be considered but as proceeding from the same cause.

In inflammation there is no stagnation of blood, nor any augmentation of action of the inflamed vessels, nor any inflammatory principle in the blood, nor excess of animation in the inflamed parts: and all these opinions are in contradiction to each other; since stagnation or congestion is in opposition to excess of action and animation, because want of circulation cannot be at the same time excess. On the contrary, no inflammation could even take place, if there was not a real weakness in the blood-vessels in which it originates; for they would not yield to the power of the blood which violently distends them, if they were not somewhat weak in proportion to its impulsive strength. This is so true, that the parts once affected with any inflammation, are more susceptible of being inflamed again than any other; because, in consequence of a former distention which has weakened the vessels, they



become predisposed to this disease, or to any other violent distention.

There is perhaps no illness more likely than this to originate from the action of weakening causes, as may easily be remarked. During the winter, our hands and feet are liable to chilblains, because these limbs are brought, more easily than any other part of our body, to a certain degree of weakness or predisposition, by the action of cold. The lungs are more susceptible of inflammation in winter than in summer, because they necessarily feel during the winter the debilitating effects of the cold air which they inhale ; and they are the more liable to be inflamed during north winds, or when fatigued by singing, by too protracted declamation, or by the inhalation of weakening particles which, through respiration, may be brought into contact with them.

All causes, under the action of which inflammations appear, are debilitating causes, and are precisely those which are reckoned as the principal causes of such diseases by all practitioners, as we may see in the works of the best writers.

Fever is always attended with an augmentation of the impellent power of the blood. In

those constitutions in which the vascular sanguiferous system through all its extent has sufficient strength to resist this power ; that is to say, in vigorous constitutions, the augmentation of the impellent power is shown by frequent and hard vibrations of the pulse, repletion of all the blood-vessels, and consequent redness over the whole body, attended with augmentation of heat. The aponeurotic vessels of the temporal muscles are, for the most part, the sole vessels which are subject to some degree of violence in their distention ; and hence head-ache is joined to the above-mentioned symptoms. The insensible perspiration being in proportion to the circulation, is always more copious, and appears under the form of sweat, unless it be too much rarefied by the excessive heat of the fever, and absorbed by the atmosphere, so as not to be perceived. The waste of substance is analogous to the state of the altered functions, and that of the aqueous part is shown by the sensation of thirst, and a strong inclination for cold water for supplying the loss, and at the same time moderating the excessive heat which is felt during fever.

Provident Nature, which has rendered the



circulation alterable, even by the action of those muscles which are designed for locomotion, and other offices necessary for individual conservation, has so disposed the functions of the animal œconomy, that the alterations themselves, as well as the absorbent vessels (the action of which is increased by that of the blood-vessels), are means by which a quantity of pinguedinous substance, proper for sanguification, is conveyed into the mass of the blood in order to supply its deficiency.

Hence, if the fever is not occasioned by violent exertion of the whole body, but its cause remains unknown, it constitutes what practitioners call *synoca* (inflammatory fever). If the constitution in which this fever appears is very much depressed, and tending to organic dissolution, the alteration of the circulation which constitutes it, appears with various other morbid effects which are more violent; such as great prostration of strength; hot and dry skin, occasioned by the excessive portion of caloric which rarefies and renders invisible the profuse perspiration; blackish and thickly furred tongue, covered with loose cruent globules (which issue with the perspiration, and from not being car-

ried away by the air, stop and dry on the gums, teeth, lips, and even on the tongue itself); unquenchable thirst, a burning heat of the skin, small and very quick pulse, dark urine, offensive breath, and all those other symptoms which denote a great disorder of the digestive functions; petechial eruption (brownish spots under the skin), twitching of the tendons, delirium, convulsions, &c. In this case the fever is called by the various names of synocus, typhus (benign, or malignant), petechial, pestilential, &c., according to the degree of violence with which it advances.

All the symptoms which characterize the fever are mere effects of the fever itself, as can be easily proved; and they vary only according to the degree of alterability or liability to disorder of the patient's constitution. From this simple and incontrovertible truth it follows, that in the soundest and best formed, as well as in the poorest constitution, we have only the two extreme degrees, between which necessarily exists an infinite variety, attended with a great variety in the effects of the altered circulation. And this is the reason why we find the diseases described by one practitioner, differently described by an-



other; and why the opinions of physicians, not excepting even those of the same school and relating to the same malady, vary so much, that each of them frequently sees a different disease.

The nature of this work does not allow us to explain all diseases, and their multifarious variations, according to the principles of animal physics. It will be sufficient to inform the public, that every difference which is generally thought essential by practitioners, is merely accidental, and only a different symptom; and that all complaints to which children are subject, are only symptoms of an alteration in the animal œconomy,—of these alone I intend to speak hereafter; since from being neglected or improperly treated, they either hurry children to the grave, or become chronic, and deform them for the rest of their lives, or at least render their constitutions puny, and their existence short and precarious.

Wherever the seat may be in which an inflammation develops itself, it never offers any essential difference; although by affecting parts more essential to vitality, it may soon destroy the patient. 'That which requires the most particular attention, is the constitution of the patient,

by which we may ascertain whether we may venture to bleed him in order to save his life, as the only means of procuring time for administering the proper remedies, although it very seldom affords any real benefit to the patient.

But since the very seat of the morbid effect called inflammation shows no essential difference, we ought still less to consider as so many peculiar diseases its different progresses, which are improperly called *terminations of the inflammation*; as induration, suppuration, and mortification. For this reason ulcers, tumours, caries, and a great many other inflammatory processes distinguished by peculiar names and thought to belong to surgery alone, for the most part end in chronic and incurable diseases, when only treated by external and topical means, to which former surgical art was exclusively confined.

If the public were once convinced of the above-mentioned truths, they would have an adequate idea of the causes of diseases in general, and consequently would be no longer dismayed at that pompous display of insignificant names adopted by the schools of medicine, which only serve to prevent people from making use of their reason in the important object of their



health. They would then no more refuse to believe that the peculiar diseases to which we have to apply curative means are but very few, and that the medicinal substances which we ought to employ, are also very few. How important is it then to distinguish the circumstances and time in which they are to be prescribed !

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### ARTICLE III.—*Curative Method in general.*

THE causes that concur in the development of any disease whatever, are generally two, as I have already observed. By avoiding the former of these, or at least by preventing their noxious combination, we preserve health ; and by removing their injurious action in case of illness, we succeed in restoring health, provided that the alteration of the animal œconomy has not already passed the bounds by which the reproductive powers of nature are circumscribed.

Worms, and other heterogeneous substances in the alimentary canal, ought to be considered as immediately alterant of the animal œconomy,

and consequently as immediate causes of all the other subsequent morbid effects which have been wrongly distinguished from each other, as so many particular diseases, ascribed to as many particular causes. But those which are liable to bring the constitution to different degrees of irritability, or to weaken the body by predisposing it to that state of derangement which constitutes disease, ought to be considered as mere debilitating and predisposing causes; so that the treatment of any disease whatever, must be adapted to the purpose of annihilating the alterant cause, or at least of removing it from the place where it is detrimental, as well as of supporting the strength of the patient by proper aliment, and of retrieving it by means of medicines proper to increase the cohesive power of the organic particles.

Practitioners commonly divide the treatment of diseases into palliative and radical; but for want of an exact distinction between the effects of the predisposing cause, and those of the alterant cause (which we shall hereafter call morbid stimulus, *i. e.* morbid excitement), there has never been among professional men any exactness in distinguishing between the palliative and

the radical treatment, and consequently they have confounded the means of obtaining the one with those of obtaining the other.

The state of alterability, or the liability to disorder of a constitution, may be brought to the highest degree, without being accompanied with any apparent alteration which we could call a disease ; as we may observe in some patients in the state of convalescence, to whom the best food may occasion the worst consequences, whenever it exceeds their digestive powers. The alteration always proceeds from the alterant cause, which, in ninety-nine diseases out of a hundred arising from the internal cause, consists, as I have before said, in worms, or injurious substances in the alimentary canal, or in both combined,—the weakening causes concurring only to predispose the constitution to their injurious action. As long as an individual is not predisposed to the action of this cause, he may carry in his intestinal organs a stimulus ever so violent,—that is to say, a great quantity of worms and degenerated substances,—without their becoming injurious, if no weakening cause reduces his constitution to a certain degree of liability to disorder.

Among the debilitating causes, there are also



some, the effects of which are more permanent than those of others ; and hence we distinguish these causes into *permanent weakening causes*, and *diffusive weakening causes*. Those, the effects of which cannot be removed otherwise than by nourishment, and which, consequently, require much time, such as copious losses of blood, purulent discharges of long standing, sores, precarious and innutritious diet, preceding diseases long or violent, considerable waste of substance, &c., are permanent weakening causes. Those, on the contrary, which may be easily and shortly removed by administering stimulating diffusive specifics,—such as cold, dampness, grief, anxiety of mind, labour and exertion (the two latter when not too much protracted), &c.,—constitute diffusive weakening causes.

Whenever a constitution is to a certain degree deranged by the action of diffusive weakening causes, and the stimulus previously existing in the gastric canal becomes morbidly active at the time of the development of some disease, by replacing the constitution in its state of vigour in which the stimulus was not morbidly active, we subdue the disease, but only in appearance, and we obtain a palliative treatment, as mostly happens in inter-

mittent fever, which is checked by the use of Peruvian bark, which is so true, that when at any time the patient exposes himself to the action of a debilitating cause, he will experience a relapse of fever. On the contrary, if we succeed in removing entirely from the alimentary canal the morbid stimulus, we obtain the radical cure; and then the patient may expose himself to any debilitating cause whatever, without fearing any bad consequences.

In every kind of disease it is always prudent to begin the treatment by a method suited to obtain a radical cure; and we never ought to betake ourselves to the palliative, except when it is extremely difficult to free the digestive organs from the presence of the morbid stimulus; and when, by using anthelmintic purgatives and other appropriate evacuants, instead of obtaining any desirable result, we perceive that we debilitate the patient more and more. Such is sometimes the difficulty of removing the morbid stimulus (undoubtedly for want of sufficient remedies), that the best treatment cannot stop the progress of the malady, and the patient dies. But with this simple method of cure, we should less frequently see untimely deaths, and society would be no

longer burdened with the maimed, deformed, and incurable beings, the unhappy victims of the erroneous systems of the medical art.

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ARTICLE IV.—*Diseases of Children in particular, and special Method of Curing them.*

MAN, as soon as he is born needs the assistance of others. In civilized nations and under provident governments, experienced midwives and skilful accoucheurs are appointed to superintend the first period of his life, during which the affectionate cares of his parents are insufficient. But afterwards, consigned to them, or to those who are appointed to fulfil the same duties, he is supplied with nourishment from the breast as other sucking animals are, during which time he would enjoy as perfect health, if his digestive functions were not frequently altered, either by the tightness of his clothes, or by the constrained position in which he is obliged to remain for many hours, or by the deleterious qualities of the milk on which he feeds, or by the presence



of worms whose seeds he received whilst in the womb, or by some other causes yet unknown.

If we examine with attention all the diseases to which children are subject whilst they are at the breast, we shall not find a single one which does not proceed from an alteration of the digestive organs; the chief symptoms of which are vomiting, green stools, severe pain, which occasions the child to cry continually, and disturbs his sleep. From this first state of disorder successively proceed, as I have already said, all other disordered states. I shall, therefore, first of all carefully examine this disease.

## CHAPTER I.

### DERANGEMENT OF THE DIGESTIVE ORGANS.

ACCORDING to the laws of cohesion of the organic particles composing the human body, infancy is the age which exhibits the greatest weakness, and is more liable to be disordered than any other (even independently of all other causes, which may produce effects more or less sensible on individuals of the same age and sex, in consequence of their different constitutions). From this great difference in the degree of susceptibility of disorder, it follows that the slightest undue excitation may be too strong, and the least weight too heavy, should either of these impulses overcome the resisting power, so that even the least injurious action will be attended with violent morbid effects. An infant, though free from every other uneasy sensation, generally feels that of hunger. Impelled by this, at the periods prescribed by nature he seeks the mother's breast, and continues sucking until the sensation excited by the gastric juices is entirely

removed. Then he falls asleep, and does not awake until the food with which he has filled his stomach is completely digested. The digestion being performed, he awakes to supply that organ with fresh nourishment. When, therefore, a child shows any uneasiness, or does not go to sleep, and continues to cry after having taken the breast, it is a sure sign that he labours under some troublesome sensation. In order to ascertain the cause of this restlessness, we must first of all carefully examine whether there be any fold in his clothes that may irritate his delicate skin, whether they be too tight, or his limbs be in an uncomfortable position. If it arises from any of these circumstances; as soon as he has been freed from his clothes, and cleaned and wiped, he will become quiet; and then being sufficiently covered and protected from the air, he will resume his rest. If, notwithstanding these precautions, he still seems disturbed, and continues crying, there can be no doubt that he suffers some pain proceeding from a disorder in the alimentary canal; since, indubitably, this organ may come in contact with some heterogeneous substances, the nature of which is to distend and irritate it in a violent degree. We must there-



fore in this case attentively observe whether the stools are in their natural state, or faulty in quality or deficient in quantity, and whether the urine is easily discharged; and we shall certainly find in these secretions some material alteration connected with the cause of his pain; and, it may be, of many other morbid effects which he cannot expect to remove, if we do not first of all ascertain the cause from whence they arise.

This cause is generally the vitiated qualities of the milk; and therefore we ought to direct our attention more to the state of the nurse than to that of the child, and prescribe for the former in order to cure the latter.

Whilst the child is still at the breast we may be certain that his disorder proceeds from the milk being either of a bad quality or not proportioned to the digestive powers, rather than from any derangement of the stomach of the child; and very frequently from the injurious action of worms. But whether the milk is deprived of its requisite qualities, or whether being given in too great quantities and not properly digested it degenerates, or whether the child immediately after having taken the breast be exposed to cold or any other weakening cause, (for in this case even

a small portion of milk may become excessive), or whether the noxious power of worms affect the gastric functions ; still the immediate cause of the child's pain will be a morbid stimulus in the alimentary canal, and therefore the treatment ought to be directed to the getting rid of this stimulus, and, as far as possible, the preventing its reproduction.

Nature, most exact and perfect in all her works, has prepared in the breast of the mother support for her offspring, subject to such variations as are analogous to his wants and digestive powers. The first milk being intended to expel the meconium from the bowels, and to cleanse them, rather than to nourish the infant, is watery, and almost without any butyraceous quality. The property of this milk in all the mammiferous animals, is to free the alimentary canal from those excrementitious substances which have collected in it during the period of gestation ; and is appointed by nature to carry away the heterogeneous particles from the digestive organs, and to enable the lacteous vessels to absorb the chyle which is designed to support the sanguification. We ought not therefore to be so eager to give food to the infant, although he

may show a desire to suck, nor imagine from thence that he feels hungry, since nature has been very liberal, not only towards the human race, but to every species of animals, in imparting to the mother in due time the necessary nourishment for the preservation of her offspring; and it is precisely when the milk appears in the breast of the mother, that, according to the provident laws of Nature, the stomach of the child becomes able to digest it. Hence this general rule,—that whenever, on account of the mother's illness or any domestic convenience, a child is to be suckled by another woman, previously to his receiving nutritious milk some gently purgative medicines should be given him, which without causing irritation will assist in expelling the meconium collected in the intestines. Syrup of succory compounded with rhubarb, in the dose of an ounce to be taken at several times in the day, will be preferable to castor oil, which is commonly used; this latter very frequently occasioning gripings and severe pain,—effects scarcely to be avoided, in consequence of the difficulty in getting this oil fresh and well prepared, as it ought to be, in order to operate gently and blandly.

It is a fact in which the best physicians are



agreed, that to let the child have good and nourishing milk from the first is very improper for it; and though not always followed by positive disease, yet is much better avoided; for it is doubtless one of the most frequent causes of the derangement of the digestive organs of children, though perhaps one of the least regarded.

The only means whereby a child can make known any undue impression made by sensible causes upon his nerves, is crying. Among the great number of such causes, it is very difficult to distinguish that which may occasion him to cry at any particular time. The extreme sensibility of his constitution renders the least protracted sensation a cause of uneasiness. Hunger, or any other sensation, if violent or proceeding from some derangement of the animal œconomy, will occasion his crying. Ignorant of this important truth, the mother, as often as she hears her child crying, thinks it is for want of nourishment, and gives him the breast. The poor infant, tormented by some other pain, and having no other resource, takes at once to the breast; but in a few moments quits it, and then continues crying and making contortions. The mother imagines that this is in consequence of a deficiency of milk, and

determines to get a wet-nurse. In the mean time, with fretting and grieving she deranges her digestive functions, and thereby deteriorates the quality of her milk ; and all her affectionate cares avail her nothing, but only to disorder more and more the digestive functions of the child, and also to accumulate a greater quantity of morbid stimulus, and thereby expose him to still worse consequences.

Notwithstanding that the cause of this disorder and the affections which belong to it appear to reside in the alimentary canal of the child, it is generally agreed that the primary cause is the deleterious milk of the nurse ; so that in general it is the nurse rather than the child who ought to be cured.

It will perhaps be said that the child may be affected with peculiar diseases, such as what are called obstructions of the mesentery, scrophula, &c. ; which, although proceeding from the morbid state of the alimentary organs, deserve particular attention : but if we lay aside mere conjecture and the absurdity of empiricism, we shall be convinced that obstructions and the many other affections of children, which are thought to be so many particular diseases, exist only in the

imagination of those who are rather the slaves of this absurd system than guided by reason and observation ; and that the method of treatment thought calculated to subdue those imaginary diseases, (which are but symptoms of increased morbid action,) is what renders the principal disease only worse and more obstinate.

Nothing certainly is more troublesome, painful, and dangerous to the mother, than to rear her offspring at the breast; and no other feeling could induce her to undergo all the hardships and maladies to which she exposes herself by nursing, than the intensity of maternal affection. For this reason I do not wish to be too severe against those parents who resign their children to the care of strangers at a time when they seem to require from them the greatest attention ; considering how frequently mothers do not possess sufficient strength to fulfil this arduous duty, in which case their attempts would prove more hurtful than beneficial to the object of their tender affection.

A woman when nursing requires a greater portion of food than usual; but taking more nourishment, she requires also more tranquillity of mind, and quiet sleep; yet her situation is such



that she cannot expect even her ordinary rest. In fact, incessantly employed in nursing and attending to the wants of her child, frequently awakened at night, and obliged to pass from a warm bed into the cold air, and to be much disquieted,—how can she properly digest her food, and preserve her strength, and her constitution not become affected even by the weight only of what she eats? And noxious substances collecting in the alimentary canal, and the action of worms also (should they exist in her digestive organs) cannot but become injurious, and produce such a derangement of her animal œconomy as will also deteriorate her milk.

If those who seem to fear no condition in a nurse but that of pregnancy, will reflect upon these circumstances, they will agree that children are more frequently destroyed by the bad milk of nurses not pregnant, than of those who are pregnant; and that the slightest illness in the nurse, although attended with no other symptom than serous and thin milk, is much more to be feared than pregnancy; for this state being advantageous to a nurse, when otherwise in a good state of health she can (provided she do not want proper nourishment) suckle

a child for some months much better than another who is in a bad state of health, though not labouring under any remarkable disease.

On a diligent examination of all the effects produced on an infant by the bad, that is the innutritious milk of its nurse, whether she be pregnant or not, we shall find that they are effects of the greater or less derangement of the constitution, that is, of debility.

The milk is an animal substance elaborated by the organic mechanism of the breast, which being transferred into the stomach of the infant, should undergo the modification necessary for making it a part of its substance. When therefore the digestive functions of the nurse are deranged or her constitution weakened, the function of the secretion of the milk becomes deranged also, and at any rate nothing but watery liquor is secreted from the breast.

The child, obliged to suck what he finds in the breast of the nurse, introduces into his stomach a substance having no affinity with the digestive juices which excite his hunger: in consequence of which, these juices still preserving their existing quality although the stomach may be full, the child's hunger, far from diminishing, increases.

Thus deceived, he loads his stomach with a useless weight; and at the very age when the development of the body requires a plentiful nourishment, he is deprived of it. Nature in the meanwhile employs for his support the pinguedinous substance, which in a short time is spent; the constitution becomes weak and poor, the stomach and bowels distended by the serosity with which they are loaded, lose by degrees their elasticity; and a diarrhœa will soon carry the child to the grave, unless assistance be speedily afforded.

But neither does the milk turn completely serous all at once, nor does the child become immediately consumptive. The deterioration of the milk and its effects vary infinitely; and these variations are attended with many different alterations of the animal œconomy, which constitute the different morbid affections which appear in children, and which have been described as so many peculiar diseases, as will be shown hereafter.

Meanwhile we may be certain that a derangement of the digestive functions of the nurse has a great influence upon those of the child; and we shall see in what manner they are to be remedied.

I have already said how the medical attendant



ought to proceed, in order to expel easily and without pain the meconium and other excrementitious substances from the intestines of the new-born child. I shall now speak of those complaints to which children are liable immediately after receiving the breast. As soon as we perceive any uneasiness in the child and any derangement of his digestive functions, we must examine the milk of the nurse as well as the nurse herself, whom we shall very probably find labouring under some disorder of the same kind as the child. In this case, if a nurse supplied with good milk can be met with, she ought to be substituted for the other, until he be perfectly recovered. A change of milk is generally sufficient to restore the child's health in the beginning of the malady. I cannot therefore too much recommend nurses to be closely observant of the state of young children's health, and as soon as they perceive in them the least disorder, to make it known; because an illness which might be cured in a day or two by early attention, may, if neglected, end fatally, on account of the great susceptibility of disorder in the constitutions of infants.

The nurse, by not giving to the child for a

few days all her milk, by observing a regular diet, and by taking copious diluent beverages, may in a short time recover her health, and afford good nourishment to the child. The most active, and I should say the most unfailing prescription for purging the child at the same time with the nurse (who is to take it), is the following :—

“Mix together in equal portions, mugwort (*Artemisia Judaica*, Linn.), jalap root in powder, and sugar in powder. (To be kept for use.) Dissolve two or three drachms of this powder in a little water, and let her take it repeatedly during the day.”

If there be any necessity for purging the child also at the same time, it would be well to give him a few teaspoonfulls of the syrup of succory compounded with rhubarb\*, this being more agreeable to the taste, and of a mild purgative quality.

This prescription may be administered to children after being weaned until seven years of age, in the dose of a drachm ; and from seven

\* The compound syrup of succory is made by boiling roots of succory with rhubarb and sugar to a proper consistence, and is given in a dose of from one to two drachms at a time.

years upwards, from one to two drachms, dissolved in water.

But in an urgent case a more active medicine may be requisite for the nurse, and then,

“ Take of senna half an ounce, boiling water six ounces ; mix and strain. Add two drachms of the former prescription, and a few drops of essential oil of peppermint ; and give her the whole at once.”

About two hours after she has taken either of these prescriptions, she must give her breast to the child, that he may be purged also ; and if she have a good constitution, the child in a few days will undoubtedly recover his wonted tranquillity, and thrive.

Should these cathartics be too strong for the nurse, she may take the following :—

“ White magnesia half a drachm, ipecacuanha root in powder two grains, sugar in powder a scruple, water four ounces. Dissolve, and divide into two doses, to be taken at the interval of half a quarter of an hour.”

Many have an invincible aversion to all medicines containing any mercurial preparation ; because in their opinion mercury is a very dangerous remedy, being liable to settle in some parts



of our body, and occasion great injury, without hope of recovery ; while others assert that it ought only to be administered for venereal disorders ; and pretend, moreover, that it deprives women of the power of conception. Although these opinions are entirely chimerical, yet it is scarcely to be believed how strongly they are entertained by some, and even by persons of great talents, almost in violation of reason and common sense. However, it is an incontestable fact that mercury is the best remedy against worms, although it may sometimes fail of the desired effect ; since it has been proved by experience that there is no medicine which can be considered as unfailing in destroying these animals, on account of their various species ; but still mercury is the most efficacious of any for this purpose.

For want of a true knowledge and proper explanation of the cause, mercury was thought an anti-venereal remedy, as Peruvian bark was thought a febrifuge ; but as neither mercury is an absolute anti-venereal, nor bark an absolute febrifuge, it has happened that, notwithstanding the use of these excellent remedies (erroneously called specifics by many practitioners), the dis-

eases in which they have been administered have rapidly increased ; and patients under the action of the former have fallen into chronical distempers and frightful deformities ; and under that of the latter, into hectic, partial dropsies, and asthmas ; and in both cases death has put an end to their sufferings.

With mercury and bark venereal disorders and intermittent fevers are frequently cured, and for this reason they have been considered by some practitioners as specifics for these diseases. Many have repeated the same assertion ; and in this manner the error has been generally sanctioned, and considered as an infallible truth. Fact often contradicts it : but fact and reason must be silent in presence of the oracles of medical philosophy ! It is not, some will say, on account of the inefficacy of mercury and bark that the disease grows worse, but that these sovereign remedies become prejudicial, because improperly administered ; and whatever may be the mode in which they have been used, and whoever the practitioner who has prescribed them, when the disease is not removed, both the one and the other must be bad. So that from the virtues of these remedies having been too much extolled, they

have fallen into such discredit with the public, that many fail of recovery by refusing to take them ; and others, on the contrary, from too great confidence in their efficacy, destroy their constitutions by using them improperly and unseasonably.

If we could undeceive mankind of so fatal an error, we should render them an important service ; and this might easily be done, were all physicians at once and for ever to abandon a certain logic of mere habit, and be persuaded that mercury is generally beneficial not only as a purgative, but also as a destroyer of worms, which are very often the cause of the violent increase even of venereal disorders\* ; and that bark ar-

\* Last summer a young woman was placed under my care, who was labouring under syphilis in its most advanced stage, having exostosis in her head and extremities, with a running caries at the sternum. All anti-venereal and mercurial preparations had been administered without effect. The intensity of the pains which tormented her dreadfully, especially at night, emaciation, extreme debility, and consumptive fever, were symptoms sufficient to induce me to refrain from making any further experiments upon her, as those who had preceded me had done : but being confident that the multitude of the alarming symptoms could only proceed from the pertinacity of a powerful cause existing in the alimentary canal, —in consideration of her youth I began the cure with emetics in large doses, which were attended with such success that



rests the course of intermittent fevers, when, by means of its strengthening qualities, it prevails so far as to raise the patient's constitution out of its state of predisposition to the injurious ac-

in the course of five days the fever was checked, and the pains ceased. The removal of the heterogeneous substances from the stomach, and sleep (which was no longer interrupted, after the violent morbid symptoms which had tormented her before were checked,) contributed in a great measure to stimulate her appetite and repair her strength. The ulcers, however, which had appeared in various parts of the body, continued still to discharge a sanious pus, and did not as yet show any disposition towards a healthy state. After twenty-seven days of decided amendment, a certain uneasiness appeared, as the precursor of fever and pains, which arose with the same violence as before. In consideration of the improvement of the patient's constitution,—I mean to say, of some strength that she had acquired,—I thought it proper to give her more active and powerful purgative anthelmintics. I gave her therefore two scruples of wormseed (*Artemisia Judaica*, Linn.), one scruple of jalap root, and twelve grains of calomel; the whole dissolved in half a pint of water. She had copious stools mixed with slimy matter, and a great discharge of worms, especially on the second day the medicine was administered. From that moment she continually proceeded towards recovery, which was hastened by the surgical means employed in the removal of exostosis and the healing of ulcers, which no longer resisted the treatment. This case clearly shows, that until we succeeded in removing the verminous fomes, all means attempted to check the malady proved completely inefficacious, and that the cure of the disease must be ascribed exclusively to the expulsion of the worms.

Another person, labouring under the same circumstances

tion of a morbid stimulus in the alimentary canal\* (the exclusive cause of all intermittent fevers), or when by its antiseptic properties it destroys the action of worms. But this can only be expected when the patient's constitution is brought to some degree of predisposition by the action of diffusive debilitating causes; and whenever we do not succeed in overcoming the noxious action of worms with mercury, and in raising the constitution with bark, we only accumulate one stimulus upon another, and the disease will increase violently.

Mercury being oxidated by muriatic acid, becomes a poison: such is the corrosive sublimate. But the destructive principle of the corrosive sublimate exists in the muriatic acid, and not in the mercury. A piece of bread when combined

so far advanced that there was no hope of preserving her life, was restored to health by the use of purgative anthelmintics only. In this instance there was, at least as far as I could remark, no worms evacuated; but the copious slimy matter which was discharged, induced me to presume that it was mere sloughs of dead worms, the expulsion of which may have been the real cause of the recovery.

\* In fact, how could we otherwise explain what is reported of those persons who, labouring under a malignant fever, have completely recovered in a few days, only by lying in a store-house in which were collected a quantity of fresh Peruvian bark?

with arsenic, becomes poisonous;—but should we say on that account that bread is a poison? This metal is quite innocuous when introduced in its pure state into the alimentary canal; and if it be absorbed and circulated by the absorbent vessels, is liable to excite salivation, and thus affect the gums and the throat. Considering this phenomenon with attention, we shall find that in all these morbid effects mercury acts as a mere predisposing, that is to say, weakening cause. Mercury, circulated by the absorbent vessels, however much attenuated it may be, still is a strange body in these vessels, much heavier than any of the other humours which are circulated by them. Being extremely sensible of the variations of temperature, it becomes more and more rarefied in the vessels as it penetrates further towards the centre of the body, where natural heat is always greater. A peculiar affinity with the mucous substance makes it adhere to the salivary and mucous glands more than to any other parts; the vascular system, therefore, constituting these glands, is somewhat weakened, if not by its own weight, at least by the protracted irritation. The glandular system being thus predisposed to be affected by the impellent power



of the blood, is rapidly distended whenever the latter is increased by any degree of reaction of the heart and arterial system (fever), and it terminates in that state called phlogosis, or slight inflammation. The blood being augmented, the secretions increase in proportion ; and thence appears salivation, which, though it may seem to be exclusively attributable to the action of the mercury, nevertheless ought to be considered only as the immediate effect of phlogosis in the mucous glandular system of the throat.

In the explication of this phænomenon I have only advanced an opinion ; but however the case may be explained, still it is certain that salivation proceeds from phlogosis, and is frequently sustained by a morbid stimulus in the alimentary canal : and this appears to me certain, since salivation with a mercurial purgative will be mostly overcome within a few hours,—a truth that I could prove by numerous practical cases. I have had many opportunities of observing the great influence of worms upon diseases, and, in consequence, many occasions for prescribing mercury with success, in every species of disorder ; and I assert, that I never had reason to re-

pent administering it, though I have found it several times entirely inefficacious. When mercury is taken inwardly, if it be in sufficient doses to occasion stools, (for which purpose I always combine it with some purgative medicine,) it quickly reaches the intestines, and is voided from them with the fæces. When it is administered by friction, (in which way its action is slower and more dangerous,) like all other heterogeneous and excrementitious substances it goes to the gastric canal, (in which case only it is beneficial,) and from thence is evacuated from the body as before. Mercury, therefore, can never be the cause of any of those disorders which are ascribed to it, in consequence of some illusory results which are supported by apparent, but too often fallacious, authority.

Peruvian bark is a fibrous substance, indigestible when unseasonably and freely administered; and if the alimentary canal be already somewhat affected, it may obstruct and disorder it more and more, by its becoming a morbid stimulus, very powerful, but little attended to; for, as is generally believed, the effects of purgatives, and those of this substance, differ essenti-

ally from one another. In these cases bark may really be pernicious, and it is not without reason that a great many disorders are ascribed to it : but as soon as we become acquainted with its real action, which is strengthening and anthelmintic, and not febrifuge, and it is properly administered, we have nothing to fear from its action.

If all physicians were convinced of these truths, and would endeavour to undeceive the public, they would do a great service, considering the undoubted efficacy of these two famous medicines. Would not those who can be brought to believe, that in order to restore health we must change the total mass of the blood, and that this is possible to be done, more readily admit these indisputable and useful truths ?

To resume our subject. If the nurse has vitiated milk owing to some disorder rather difficult to be removed, or should she be pregnant, the only way is to consign the child to a better. If, notwithstanding this change, the child continues to be restless in his sleep, to have vomiting, or any other disorder of the digestive functions, which will be easily perceived from the rancid smell of his breath, or by the green colour of his stools, he must be purged with



“Twenty grains of calcined magnesia \* ; twenty grains of sugar ; one grain of aniseed in powder : the whole dissolved in a little milk or water. To be given three times a day.”

Or, with

“One ounce of syrup of succory compounded with rhubarb, given at different times in the day.”

But if there be any probability of the presence of worms, it would be preferable to give

“One grain and a half of resin of jalap dissolved in a tablespoonfull of syrup of succory, to which must be added a grain and a half of calomel. The whole to be taken at once.”

There will probably be no occasion to repeat the dose, its effects being very active, and the child's relief most certain. If with these medicines sufficient stools be obtained, the child will soon recover with the addition only of good and nutritious milk. But if after all this the child's

\* Calcined magnesia, when administered in time, proves a never failing remedy against poison proceeding from *concentrated* acids, and acidity in the stomach. The dose is from half a scruple to two drachms, dissolved in water.

indisposition continues, or even increases, it is a certain sign of worms ; and then the following mercurial preparation, from one to two scruples, dissolved in a little milk, should be given.

*Composition of the Mercurial Conserve.*

“Take of mercury as pure as can be obtained, and conserve of roses, half a drachm of each ; bruise them in a glass or stone mortar until the mercury has entirely disappeared ; then mix four grains of pure *diagridium* (Scammony) in very fine powder.”

It is also very useful to hang at the child's neck, either a piece of camphor tied in a small piece of linen, or a kind of necklace of cloves of garlick. By this simple mode of treatment, this first malady of children is easily cured. But these first effects of the derangement of the digestive functions seldom attract the attention either of the nurse or of the parent. Some slight disorder in the nurse, proceeding from dietetical errors of little consequence, or from some transient disquietude of mind, or if the child has been exposed to a current of air, or left during some time in an uncomfortable position, or in the wet of his urine and fæces,—all

these may occasion a manifest disorder of his digestive functions, which, proceeding from causes easily to be removed, will often disappear without the assistance of medical art. These frequent circumstances make us neglect such slight indispositions, which then lead to others ; and these appearing under many various forms have subsequently been supposed to be so many essential maladies. We shall therefore consider the most common of them in the order of their stages, or in other words, proceeding from the immediate effects of these causes to the secondary and successive ones.



## CHAPTER II.

### FEVER, AND ITS CURE.

It is especially in infancy that almost all maladies have for their immediate cause worms and heterogeneous substances in the alimentary canal ; and children, on account of their weak constitutions, are more liable than adults to be affected by the action of any cause whatever, and to be seriously injured in their health even by the slightest, which at a more advanced age would not have been in the least hurtful. Although the effects of the cause just mentioned often appear with mere idiopathic symptoms, that is to say, with derangement of those parts immediately affected by it ; namely, pains in the bowels, vomiting, diarrhœa, offensive breath, &c. (all effects of distention and irritation of the alimentary canal, occasioned by the presence of worms, and by the emeto-cathartic action of heterogeneous substances contained in it) ; yet the circulation of the blood is always more or less deranged. If therefore we examine the morbid effects con-

stituting that preternatural state which we call fever,—a state which we can easily determine, by observing the principal phænomena that attend the derangement of the circulation,—we may properly consider, as an exclusive effect of the above-mentioned cause, even the fever which under various forms is met with in infancy : and as every practitioner is agreed on this point, there is no occasion for any further explanation.

Fever, however, has never been defined with a precise knowledge of the cause, and therefore it has most frequently been thought to proceed from mysterious ones, whilst its effects have been considered as so many essential disorders, arising from causes which are likewise merely hypothetical and chimerical. But we may say that the derangement of the circulation of the blood is the most frequent cause, although not the most regarded, on account of the easy alteration of the motion of the heart, by the action of external powers upon the organs of sense, or any other part of our body furnished with nerves. The pulse is the index by which we can discover this derangement ; but we have never been able to determine the precise point of its true natural state. It is therefore either a folly,

or an imposture, to feel the pulse with the watch in hand, as is the practice of many. Such is the power of the imagination on the motion of the heart, that the mere action of presenting our pulse to be felt by another, or of feeling it ourselves, is sufficient to alter it in a great degree. Indeed the pulse alone cannot be considered as an infallible rule to ascertain whether a patient has fever or not ; for the mere derangement of the circulation, if not attended with bad consequences, is not considered in itself as a disease, especially when it proceeds from a cause well known and easy to be removed. Rest, for instance, will stop that reaction of the arterial system which is violently excited by a hasty walk ; and the perturbation of the pulse produced by intoxication will also disappear as soon as the effects of the liquor abate ; the circulation is likewise re-established as soon as the digestion of the aliments is performed ; &c.

The first effect which we consider as a disease, is an increase of heat ; and this very effect, the most simple and frequent, is generally considered not as an effect, which it really is, but as a *cause* of other disorders. We frequently hear it said by persons, that they feel heat in their



body, and they want to cool themselves; and that such and such disorders proceed from heat, because they know that they have taken heating food or drink. For example, a nurse commits a dietetical error, if she takes food dressed with too much spice, or drinks immoderately of any spirituous or fermented liquor, &c. These stimulating substances will alter the circulation: the first effects she feels of such alteration is a general increase of heat, because by the augmented action of the sanguineous vascular system, the blood is impelled forward with more force, its motion is increased, and it diffuses throughout the body a greater quantity of heat. From the alteration of this function proceeds the alteration of the milk, which is one of its products; and the milk being no longer proportioned to the digestive powers of the child, is badly digested, becomes also a morbid stimulus, alters the circulation of the blood in the child, and consequently increases the heat. It is then that we hear it said that the nurse has taken heating substances, and that she has given the child milk of heating quality.

Let it not be supposed that this is merely a play upon words, nor let it be imagined that

whatever be the cause of heat, it will occasion any disorder, and must be removed by administering cooling substances. If the public will submit to be imposed upon by those who unadvisedly promulgate these principles, they will frequently expose their children to be injured by excessive bleedings and improper treatment; in consequence of which, a disorder that would otherwise have been easily cured, will rapidly increase, and, what is more unaccountable, the credit and interest of the practitioner will increase too. The physician who is endowed with feelings of philanthropy, will undoubtedly agree with me, that very frequently, in consequence of a capricious system, arising from obstinacy in supporting fantastical principles, or from unknown and equivocal methods of administering medicines, disorders are not only protracted, but also grow worse and prove fatal: evils which, far from diminishing the credit of the medical attendant, will establish his reputation; for the vulgar, being inclined to applaud and wonder at every thing they do not understand, easily believe, that if the patient do not recover, it will be owing to the nature of the disease being absolutely insuperable; when ge-

nerally, if the result prove fatal, it ought to be ascribed to the absurd treatment.

Is it not true that a derangement of the circulation will occasion an increase of heat? Who would renounce reason and evidence by denying this manifest truth? Is it not asserted by the best practitioners, and proved by daily experience, that worms and other heterogeneous substances liable to exist in the alimentary canal, may be sometimes the cause of fever? Who can deny that the more violent the derangement of the circulation, the greater must be the waste of substance, for the supply of which we are obliged to take daily nourishment? Has it not been proved, that the weakness of the patient is in proportion to this waste; and that a greater weakness is attended with a greater susceptibility of disorder? Is there any one who can deny that the more a constitution is altered, the more violent are the disorders which ensue? Is it not apparent, that the restoration of the functions, and the reproduction of the animal substance, are exclusive effects of the laws of animal organization; and that the blood is the substance with which nature effects the development of all the parts of the human body, supplies the incessant



losses, and maintains the organization to the latest period of life? And, lastly, is it not true, that when the digestive functions are altered, the organization is deprived of its necessary nourishment, for want of which the animal must inevitably perish?

Let us reflect upon all these points, and then judge whether it be possible to do a greater injury to a patient labouring under a fever, than to bleed him, especially during infancy\*; an age which, for the growth of the body, requires more blood than any other, and at the very time when the malady consumes a great quantity of animal substance, so necessary for the support of the child. But some will say, that the case in question is an inflammatory fever; that there is an excess of strength and vitality; and that if the blood be not diminished, in order that it may be diluted with aqueous potions, by which heat is suppressed, we may expect that it will stagnate in some of the viscera, and occasion death.

But if it be not intended to take advantage of the credulity of the public, we must renounce

\* Except in the case of a violent inflammation, accompanied by a manifest attack of the viscera, or of any other part whatever, suddenly threatening life.

these specious chimæras, which are contrary to reason, and treacherous to mankind. And I can scarcely believe that any physician would persist in following systems so opposite to common sense, merely because they have been sanctioned by men of great reputation, or from the only desire of appearing infallible,—since such obstinacy would be more fatal than the plague.

What is commonly called heat (to the effect of which a great number of diseases are ascribed; as when people say that they feel heat in their body, or that they are subject to some indisposition proceeding from heat, and that they must have it allayed,) is only an effect of some derangement in the circulation; that is to say, an effect of fever, as it is called. If these first degrees of fever proceed either from stimulating aliments, such as those seasoned with spices or difficult to be digested, or from drinking too much wine or other spirituous liquors,—a strict diet for a day, a gentle purge, or even copious draughts of simple water, will suffice to remove the cause, and consequently the effect. In these common cases, bleeding will do very little harm; for certainly a man can then spare a pound of blood without doing any injury to his health: and in

order to show that I am far from rejecting this operation, I will observe that—since the reaction of the vascular system always occasions a greater absorption of fat, and consequently an augmentation of blood, which causing an unnatural distention of the sanguineous vessels, is attended with a certain feeling of uneasiness, heaviness, and heat in all the body,—venesection, by instantly diminishing the mass of blood, may prove beneficial, though not in all cases ; as we often observe in those diseases commonly called colds, benign rheumatic fevers, and the like.

But the fever before mentioned may also proceed from the presence of worms, or from indigestible or heterogeneous substances in the gastric organs ; and in that case the heat of the body is merely the first symptom of the derangement in the circulation of the blood, proportioned to the degree of irritability of the constitution. The question now is, not concerning substances difficult to be digested, but stimulating substances, indigestible and hard to be removed. When any one is ill in consequence of having eaten food difficult of digestion, it retains for some time its heterogeneous and stimulating qualities ; the patient does not feel a weight at his stomach ; his taste is not



bitter; his tongue is not covered with a thick fur, &c.;—he only complains of a higher degree of heat: and when worms or injurious substances act but as heterogeneous and stimulating principles, they likewise appear in the beginning to be attended only with the first effects of a slight derangement in the circulation, as if some stimulating food was the only cause of it. These facts being granted, it is easy to perceive that to judge of the cause from the identity of symptoms, is to expose ourselves to commit great errors; and greater still, if we were to deduce the general treatment from what may have been useful in this same malady. In the first case, a gentle purge and bleeding have proved beneficial; for by means of the former, the cause which alters the circulation was removed; and by the latter, the mass of blood being diminished, if no good was done, still relief was afforded to the patient in less time than nature unassisted would have done. But when worms and heterogeneous substances exist in the stomach and intestines, the case is entirely different. By a mild purgative we only weaken the patient, by carrying away from his digestive organs substances which are able to furnish a portion of chyle; because by

these means the morbid stimulus is not removed : by blood-letting we debilitate him still more ; for by the abstraction of this important fluid we consume at once as much substance as the disorder of the animal œconomy would occasion in many days ; we render the constitution more liable to be altered ; we predispose it more and more to the hurtful action of the morbid stimulus in the gastric organs ;—and the fever consequently increases. This is not merely my own opinion, but a positive truth grounded on facts. Let it then be repeated, that the morbid effect which we call heat, proceeds immediately from the disordered circulation. When, therefore, we say that we have heat in our bodies and want cooling medicines, we say nothing more than that we are ill, and want to restore our health. Since excessive heat is constantly an effect of an alteration in the animal œconomy, it is likewise improper to say that immoderate heat and acceleration of the functions are proofs of superabundance of strength and vitality ; because it would be incongruous to say that violent exercise of the animal frame is a cause of excessive strength, although there is certainly nothing so liable to alter the circulation and excite a vehement heat as this.

Who is not aware that this cause is always followed by a great loss of substance, and therefore of strength ?

It may not only be more or less difficult to remove the morbid stimulus, so that the same complaint may subside in one person while it increases in another ; but also the same cause may become more or less rapidly noxious, and its force greater or less in one individual than in another, according to the susceptibility of disorder to which men's constitutions may be brought. Let us suppose four individuals of like constitution, having each in the alimentary canal worms and other heterogeneous substances, though without experiencing any sensible inconvenience ; they all four expose themselves to the action of the weakening cause, but do not remain exposed to it during the same length of time. For instance, Four labourers are obliged to perform a certain task, which requires every one of them to remain for some time in cold water ; with this difference only,—that one performs his part in one hour, the second in two, the third in three, and the fourth in four hours. It is evident that the first will suffer less than the second, the second less than the third, and so on. The alteration



of the constitution of the first will be in so small a degree that the morbid stimulus will be almost imperceptible, and he will scarcely be affected by any increase of heat. In the second, the degree of disorder, or in other words the predisposition to the injurious power of the morbid stimulus being greater, the derangement of the circulation (fever) will consequently appear with more violence ; and besides an increase of heat, the patient will feel the head-ache. In the third, the constitution being yet more liable to be altered, the morbid stimulus will be felt with still greater violence ; and by communicating itself to the whole nervous and muscular system, its stimulating agency will excite an involuntary contraction in the muscular fibres, and occasion that state of illness known by the name of cold fever, &c. The fourth, besides being weakened more than the others, and his constitution carried to a higher degree of predisposition, has also fatigued his lungs more, as well by the altered circulation caused by labour, as by inhaling during a longer time a damp and debilitating air ; so that after being seized like the others by a fit of cold fever, the violent circulation which constitutes the hot fever succeeding the cold, in-

creases the impulsive power of the blood to such a degree, that the pulmonary vessels, in consequence of their being weaker than any other part of the body, are violently distended, and terminate in that more or less violent state of disease called inflammation of the lungs, besides the other febrile symptoms above mentioned.

In these cases it is obvious that there are only some accidental variations, merely depending upon the degree of the predisposition of the patient, and consequently upon the greater or less degree of violence in the altered circulation ; which circumstance is so true, that the same remedy proper to expel the morbid stimulus in one case will be sufficient in all,—with this difference alone, that in some the recovery must not be expected as speedily as in others. Yet physicians commonly consider these accidental modifications as so many essential variations, that is to say, as so many peculiar diseases ; and in consequence, they will find in one individual a rheumatic fever, in another an inflammatory one, in a third an intermittent fever, real or spurious, tertian, quartan, &c. ; and so on, according to the length or interval of the fever fit : and lastly, they will consider the disease either as

a peripneumony, and then the fever is called *symptomatic*; or it preserves its intermittent character, and in this case it is called a *pernicious* or a *pseudo-pernicious* fever. But it is useless to go any further into the examination of these facts; because the physical demonstration of all these phænomena has no connection with the object of this work. What is very important to be known is, that all fevers,—either intermittent, that is to say, attended with cold and heat; or remittent, that is to say, continued, acute, benign, malignant, &c.,—are always consequences of a morbid stimulus in the digestive organs, or of corrupt substances of any kind, or of worms; and are always attended with more or less derangement of the circulation.

Some perhaps, slaves of inveterate habits, will find this mode of reasoning unsatisfactory, as not being yet sanctioned by the authority of great physicians; but I do not hesitate to acknowledge, that notwithstanding so many reasons and facts in my favour, I may be mistaken, as has often happened with respect to many other writers before me. Therefore I give my opinion to the world, and shall receive with the greatest satisfaction the judgment of true philosophers; and



so much the more, because the system in question (which I only concur in supporting with my own pathological observations, which no medical doctrines can overthrow), has been followed in practice by the greater number of physicians, without their having made any application of it as a consistent theory. However this may be, the point of greatest importance is, as I have before observed, to examine whether the method of cure which I propose for the diseases here brought under consideration, is conformable to sound practice, and grounded upon accurate observation ; an object which more than any other ought to interest the public, and to which I have consecrated these my labours ; for which reason I have endeavoured to make myself generally understood, and have not employed the unintelligible terms of strict medical language.

Whatever may be the aspect under which a fever appears, if it continues and increases beyond twenty hours, we must conclude that there is in the alimentary canal a morbid stimulus, either of worms or other heterogeneous substances. If the child is still at the breast, we ought to follow the treatment which we have already mentioned, in order either to restore the

milk, or to expel the worms. But when the child is weaned, the method of cure must be directed to remove the morbid stimulus by a purgative, suitable at the same time to expel from the digestive organs either the worms or any other degenerated and corrupted substances, without troubling ourselves concerning the real cause of this stimulus; because we have no certain reason to determine whether it be worms or other heterogeneous substances which are thus powerfully active. The evacuation of worms by vomiting or stool, is a proof that they existed in the gastric canal, but not that the disease proceeds from their noxious power rather than from that of other substances existing in this organ; for the effects which prove the existence of this morbid stimulus, have for their immediate cause the disorder of the animal œconomy, and not this morbid stimulus, of which they are only secondary and subsequent effects. This distinction, grounded upon unquestionable principles, must be carefully considered, lest it should be supposed that we consider the morbid stimulus in the alimentary canal as the proximate cause of all diseases; an error entirely repugnant to what we intend to establish.

A gentle emeto-cathartic in the commencement of the malady is very efficacious ; because it not only carries off a great quantity of injurious substances, but the rather violent motion which it occasions in the stomach and bowels will very probably remove even the worms, if they exist, and predispose them to the action of remedies.

“ The emeto-cathartic solution of two grains of emetic tartar in five ounces of distilled water, with two ounces of *aqua totius citri* \*, will be very useful for this purpose. Whatever may be the age of the patient, give him a teaspoonfull of this solution every five minutes until vomiting commences.”

But abstain from giving him either broth or any other liquid ; for this usual practice accelerates too much the action of the remedy, and by

\* Let a pound of the fresh rind of the fruit of cedar be put into six pounds of water in a proper vessel, and let it distil over a slow fire until it be reduced to two pounds of aromatic water. This is called *aqua totius cetri*, an antispasmodic and strengthening stomachic.

This chemical process is altogether like that by which distilled orange-flower water, or orange-peel water, or lemon-peel water, is obtained.



diluting, weakens it. In several instances this remedy alone repeatedly administered for two or three days, has been sufficient to cure diseases which seemed to threaten the patient with death. In the course of the day, potions either of simple water, or with the addition of any agreeable conserve, which may be varied at pleasure, will serve to quench the thirst of the patient. In children still at the breast, the milk alone suffices in most cases after the medicine above mentioned. Children already weaned require light food in small quantities: bread grated and boiled in broth, or fresh butter, and gruel or groats, or arrow-root, will be the best food. We would particularly recommend that children be not forced to eat when they do not feel hungry; for the aversion clearly shows that the stomach is already loaded with undigested substances, or is otherwise indisposed, and that any addition of food would be burdensome and detrimental, by depriving this organ of its necessary power of performing the important function of digestion: it being moreover evidently proved, that the nourishment of the body is not in proportion to what is eaten, but to what is digested.

If we perceive after two or three days that

this remedy is insufficient, or even prejudicial, as is the case when by administering it we weaken the child, we have reason to believe that the presence of worms is the cause of the disease. Then we ought to administer the mercurial conserve prescribed in the chapter on the “Derangement of the Digestive Organs,” in a dose of three or four scruples, diluted in a little milk or some other agreeable sweet potion, for two, three, four, or even more times, according to the circumstances. By this remedy we very frequently obtain an abundant evacuation of worms, and, consequently, sometimes a recovery. By alternating the medicines, we procure in a few days a better result than by repeatedly administering the same: so that we may alternate this mercurial preparation with one of calcined magnesia and sugar in equal portions, with the addition of a few grains of aniseed diluted in milk or whey, as I have already mentioned. We may also make use of the James’s Powder, with the addition of five or six grains of gum guaiacum, and the same quantity of conserve of roses; or, which is still better, syrup of succory compounded with rhubarb, the whole divided into three pills, if the child can swallow them; or diluting the whole in

a greater quantity of syrup of succory, to be taken all at once.

The infusion of Corsican coralline (*Corallina officinalis*, Linn.) has also been found very efficacious in these cases; and it is strange that a remedy so beneficial against worms should be almost unknown in the apothecaries' shops of this country.

*Coralline Infusion.*

“Take of Corsican coralline two drachms, boiling water three ounces; let it stand during the whole night, strain it well: then mix a tablespoonfull of syrup of succory compounded with rhubarb. Let it be taken at one time, and repeated for two or three successive mornings.”

As I did not think it advisable to appropriate a particular chapter to verminous disorders, having sufficiently demonstrated the probability of their presence in nearly all diseases, I conceive this the proper place to mention the Corsican coralline, a valuable anthelmintic, because I have had occasion to observe that eminent English physicians make use of some anthelmintic remedies which are not only of little efficacy as such, but are difficult to administer, extremely irritating,



and oftentimes the cause of severe pains and of other disorders ; so that it would be advantageous to give them up, as has been done long since in other countries of Europe. The *Dolichos pruriens* (Cowhage) for example, is recommended even in the Domestic Medicine, lately published in this metropolis, as a powerful vermifuge, to be taken for three successive days ; but not being sufficient of itself to expel worms, a strong purgative is ordered to be given afterwards. Now is it not evident that by acting in this manner, and administering repeated medicines, we not only lose time, but also fatigue the stomach of the patient ; whilst by means of a valuable anthelmintic, as wormseed, mercury, or coralline, we can really obtain the relief of the patient, by the speedy expulsion of worms, in consequence of the simultaneous action of these purgatives and vermifuge remedies, which have, besides, the advantage of being easy to be administered, to the certain relief of the patient ? With regard to diet and ordinary beverage, I have already pointed out what method ought to be followed in such cases.

The evacuation of worms is in nearly all fevers the most favourable prognostic, showing that the illness is either entirely removed or approach-

ing its end. But we must not expect, for this reason, that the symptoms which characterize the disease will disappear as soon as the worms are expelled ; for Nature, in order to resume her functions, requires some time, according to the degree of irritability to which the animal œconomy has been brought ; a circumstance necessary to be known, that the patient may not be harassed with superfluous medicine ; for the action of the worms being once subdued, the patient should be left quiet, without any attempt being made to assist the efforts of nature towards a cure ; for the ill-timed use of medicines intended to remove the morbid effects, only delays the recovery ; and if it does no harm to the constitution, at least it deranges the digestive functions, and withholds from Nature their important aid, without which there is no hope of recovering from the state of illness.

The evacuation of heterogeneous substances and worms by means of purgative remedies, is always the consequence of a disturbance of the peristaltic motion of the alimentary canal, and consequently must greatly depress the patient, and for some time increase his sufferings. But the cause being removed, the effects will cease

too ; and the action of the medicines being terminated, the patient will by degrees recover his quiet, although he may appear for some time rather more oppressed. This, however, is not a fit time to administer fresh medicines to him, who requires nothing more than repose and tranquillity. Those who are impatient to see the malady immediately subdued by dint of artificial means only do the patient greater harm.

In all fevers arising from an internal cause, there is constantly a longer or shorter remission, whence they have all been named either intermittent or remittent. The length of the fits may differ in each fever, according to the different species and degree of the disorder ; but when it has reached its highest point, it is attended with those symptoms which mark its degree of violence. These symptoms occasion the sufferings of the patient ; and though the cause may be removed, still they will not give way before the decrease of the fever : yet it happens that the fever abates by itself, although the cause remains ; so that, if after administering some medicines, or using other artificial means, as blood-letting, &c., we obtain the remission of the febrile symptoms, we ought not to be so eager to



ascribe to our method the apparent benefit, which may proceed from the natural course of the disease. In a word, let us have a real object in view in administering medicine ; and if we discover any appearance of the desired results, let us wait with patience the complete effects of such results, which we shall find not in the apparent tranquillity that follows bleeding, but in the suspension of the fever, or in the interruption of the course of the disease. Patients seem to grow worse, in consequence of the action of purgatives ; but as soon as the violence of the malady is over, the fits do not return, and they recover in a short time. On the contrary, they apparently improve in consequence of the momentary relief afforded by blood-letting, but soon afterwards the fever reappears with more violence than before, and requires bleeding upon bleeding. By these means the patient grows worse ; and if he does not die of a total loss of blood, he becomes either dropsical, asthmatical, or consumptive. Such is the difference between employing a simple rather than a violent and complicated method of cure.

It is sometimes so difficult to overcome the cause

of the disease, that although we may be certain of the existence of worms, yet if we were to persist in administering purgative anthelmintics, we should entirely destroy the patient's constitution for the aforesaid reason. In these cases it is absolutely necessary to adopt a palliative treatment ; that is to say, to keep up the strength of the patient with such corroborative and invigorating medicines, as are capable of diminishing to a certain degree, and for a certain time, the action of the cause of the disease, and of imparting to the animal œconomy a great portion of vigour, so that it may successfully resist the same injurious cause, and render less afflictive his precarious existence. We find in the Peruvian bark an excellent strengthening substance, and at the same time one of the most powerful of antiseptics, and consequently also an anthelmintic. If the case be an intermittent fever, give the bark in powder, in a dose of two, three, or even four scruples every three hours, until the fever abates ; then continue the same medicine for some time in decoction or in a vinous infusion, according to the following formulæ.

“ 1. Take of Peruvian bark, of the best qua-

lity and well bruised, half an ounce ; boil it in nine ounces of common water until reduced to six ounces.”

“2. Infuse an ounce of Peruvian bark in powder in a pint of white wine of the best quality, for twenty-four hours ; shake it now and then, that the bark may be thoroughly combined with the wine. Before using it, let the mixture be strained.”

Either of these two preparations must be given once in the morning and once at night, in a dose of two, three, or four ounces each time, according to the age of the child.

We are indebted to the assiduous application of eminent chemists for the *sulphate of quinine*, a preparation which offers under great advantages the active principle of the Peruvian bark, from which it is extracted, and unites in itself in a very small dose all the properties of this substance ; so that we can obtain the same effects as from the bark, without loading the stomach or occasioning the nausea, sometimes unconquerable, to which patients were before subjected. For these reasons preference is to be given to the sulphate of quinine, administered in doses from half a grain to three grains gradually,



either dissolved in a little water or tincture of bark, or made into pills, or mixed with syrup, especially when the principal object is to give it as a stomachic and strengthener. We must however observe, that although the sulphate of quinine is an excellent febrifuge, very useful in intermittent fevers, yet in some peculiar cases its efficacy may be less than that of Peruvian bark ; so that it will depend on the skill of the physician to make a right use of each.

As in remittent fevers patients can with difficulty take either bark in powder or the oak bark, it may be administered in decoction, with the addition of some diffusive stimulant, as follows :

“ 1. Take of the decoction of Peruvian bark above described six ounces ; of camphor a scruple, dissolved in mucilage of gum arabic, with the addition of two grains of the aqueous extract of opium : mix the whole. Two teaspoonfulls to be taken every two hours.”

“ 2. Take of the same decoction six ounces, Hoffman’s liquid anodyne a drachm, liquid laudanum twenty drops.—Dose the same as the last.”

“ 3. (*For the poor.*) Take oak bark boiled,

in the same proportion and in the same manner as the Peruvian bark ; and the same addition of camphor, opium, or liquid anodyne and laudanum, as in the above prescriptions.”

We must have recourse to these means, only after having tried in vain the anthelmintics likely to obtain a radical cure by dislodging from the alimentary canal the vitiated and verminous matters ; in which case the constitution of the patient is undoubtedly become weak and alterable, on account of the waste occasioned both by the obstinacy of the fever and by the action of the cathartics. In these cases the food must be at once of a nutritious and light quality ; let it consist of soups, of boiled bread or gruel as above-mentioned, and also of the yolks of eggs beat up with broth or with wine and sugar. As long as the constitution of the patient has not lost much substance, the fever itself, as I said before, will cause a great quantity of pinguedinous substance to pass into the blood, by which means Nature supplies the want of nutrition ; the functions of digestion in these cases being almost always impaired. If during the violence of the fever the patient is bled, the pinguedinous

substance, not having yet undergone the modifications necessary for it to acquire the qualities of the blood, still preserves its own lightness and whitish colour ;—it swims on the surface of the basin, coagulates in proportion as it grows cool, and forms that white ashy or yellowish crust which physicians call a *phlogistic cotenna*. This circumstance is sufficient to convince the judicious practitioner that the waste of substance must be very considerable, and must necessarily bring the constitution of the patient to a greater degree of weakness, and consequently the disease to a greater degree of violence. But this state of violence is generally considered as inflammatory, and by ill-timed venesections the effects of the fever will become more and more formidable ; a circumstance which we ought to avoid, especially in children, in order not to lavish incautiously the precious support of life, for which object Nature has given to them such a digestive power that it appears almost inextinguishable. It is commonly said, that inflammatory fevers degenerate oftentimes into *nervous* fevers, that is, into fevers proceeding from weakness, and therefore into malignant *typhoid* fevers, formerly called putrid fevers.



But it is very easy to comprehend, that all the difference which exists between an inflammatory and a putrid, nervous, or malignant fever, consists in nothing more than in the greater or less degree of irritability and weakness of the constitution, and consequently in the degree of the fever itself; that is to say, in the derangement of the arterial and viscous system. The passage of the disease from the sthenic to the asthenic diathesis (according to the modern language), and from the inflammatory to the nervous and lymphatic (according to the ancient), is but the varied effect of the same fever, and consequently of the same cause. In the fevers called nervous, putrid, typhoid, or malignant, there is always a greater or less decay of strength in the organic system, in consequence of which it is necessary to make use of those remedies which are proper to invigorate the tone of the body, in order to preserve to nature the power of destroying and expelling from the gastric organs all the vitiated substances which occasion the fever and the derangement of the digestive functions; for which reason, the above-mentioned diffusive stimulants are highly recommended in preference to any others.

But nature is in such a state of languor, that to promote the general contraction in all the muscular and vascular system, which increases the power of cohesion of the organic particles and of all organic life, the most powerful stimulants are necessary, such as are proper to operate directly upon the organization. Blisters, cauteries, and mustard plasters, are in these cases highly advisable : but in circumstances of this nature, every parent comprehends the necessity of applying for the care of their children to those professional men who deserve their confidence. I have only intended in the preceding observations to point out to the public the simple means by which the progress of disease may be stopped, when there is any possibility of succeeding ; when not, recourse must necessarily be had to the aid of a skilful physician.

## CHAPTER III.

## THE SCARLET, MILIARY, AND PETECHIAL FEVER.

FEVER itself being a weakening cause, is also one which predisposes to its own more violent progress ; and this is the reason why a fever if neglected, or improperly treated, makes progress, although the patient be freed from the predisposing and debilitating causes which first gave rise to it. The predisposing causes of fevers do not always and regularly debilitate the whole organization. I have demonstrated a variety of effects arising from the same weakening cause, in the four individuals mentioned above ; but the diseases of children do not always proceed from weakening causes so apparent. The sun, to whose scorching rays children are sometimes exposed, either in their own natural diversions, or by the thoughtlessness of their parents, especially when the spring begins to overcome the rigours of winter—predisposes (by weakening) the smallest vessels situated on the very surface of the body, and chiefly in parts the



most delicate and susceptible, to yield to the rushing force of the blood. Some south-east winds (Sirocco) produce also upon the surface of their bodies effects analogous to those occasioned by the action of the sun. If while they are under such predisposition fever appears, these small vessels become more distended than the others, and are of a deep-red colour, as if the surface of the body were here and there tinged with scarlet. This accidental circumstance gave to this fever the appellation of *scarlet fever*; and, as such predisposing cause has a great influence upon a number of children, the fever appears at the same time in many; for this reason some have believed that particular and characteristic miasma was the cause of this fever; and this opinion being eagerly embraced by many, it was generally concluded that this malady was essentially different from any other.

There are sometimes in the atmosphere some particles arising from more or less heated substances, which are spread about on all sides by the wind\*, and brought into contact with our

\* The *ophthalmia*, which during a long time was endemic and prevalent in some parts of Catalonia (Spain), has been lately ascertained to originate from insects engendered in

organization are liable to alter it considerably, and cause, if not always a serious disease, at least a very troublesome itching. The skin cast off from many insects and reduced to very fine powder, may even in a very small quantity occasion to the weak organization of children a considerable alteration, which will predispose some parts of their bodies to be affected by the impellent power of the blood, when this is in any degree augmented by the reaction of the heart and arterial system (fever). It is chiefly in summer that the air is impregnated with these heated particles: it is also in this season that the fever sometimes appears attended with a considerable quantity of small tubercles or swellings, which occasion a disagreeable itching, and which, nearly resembling grains of millet, gave to this fever the name of *febris miliaris*, or *miliary fever*. This disorder, for the above-mentioned reasons,

reeds, and not perceptible by the naked eye, which being carried away by the wind during the months of August and September, lie in the inner parts of the eyelids: these insects coming in contact with that very thin pellicle called the *conjunctiva*, exerted a caustic and irritating action, in consequence of which the ophthalmia was rapidly aggravated, and many lost their sight, in spite of the application of the means hitherto used to prevent such serious consequences.

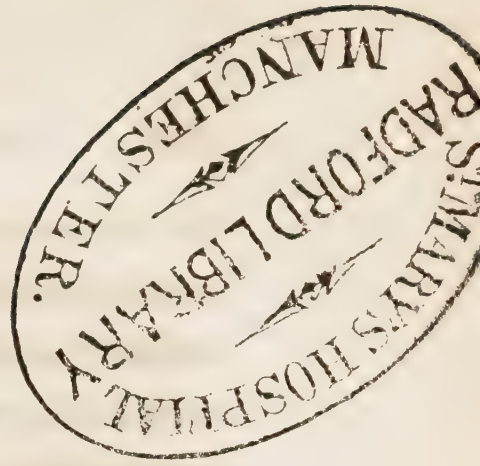
was also believed to be of a peculiar character, and gave origin to a nonsensical medical cant, which involved the study of this malady in a series of errors and conjectures very fatal to mankind.

The constitution of the patient may sometimes be reduced to a very great degree of weakness, in consequence of a deficiency of the cohesive power of the organic particles, proceeding either from want of nutritious food, or from the action of disorganizing particles, exhaled in great quantities from the putrid dissolution of animal substances, and rapidly diffused through the atmosphere. Among the first causes, the principal are, dearth, unwholesome and corrupted provisions, and protracted fatigue. Among the second, are the fevers properly called putrid by the ancient fathers of medicine; and are those distempers from which, in their various degrees of malignancy ensue (if I may so say), a general organic dissolution,—whose corrupted particles being afterwards carried violently along in the air, are liable to affect powerfully the animal organization of those individuals who are surrounded with that atmosphere, and predispose it to the same putrid dissolution. If in persons of such miserable



condition fever appear,—as always happens when the digestive organs are affected by heterogeneous substances,—the abundant heat which arises from the derangement of the circulation of the blood, rarefies to such a degree the perspirable substance, that it immediately passes into the atmosphere, leaves the skin harsh and dry, thins the blood, and facilitates organic dissolution. Some globules of blood very much rarefied, with the excrementitious substance passing into the bladder, thicken the urine, and give it a deep colour. Where the inorganic pores are sufficiently capacious to be continually moistened, as those of the cavity of the mouth, the excrementitious matter which passes through the exhaling vessels and constitutes insensible perspiration, carries the globules of blood with it, which, not being conveyed into the air as the aqueous substance, dry on the skin and form that blackish and thick fur which covers the tongue, gums, and lips. On the contrary, in those parts where the exhaling pores are minute, the same combined humours remain under the epidermis, and form those spots called *petechiæ*, resembling the bites of insects; therefore this fever which (as it is thought) constitutes the malignant typhus,

is also named petechial fever. But I repeat, that all these fevers merely offer accidental differences, which ought not to induce us to alter the treatment in any respect. By the means above described we shall subdue these as well as other diseases, when once we overcome the injurious power of the morbid stimulus which affects the digestive organs. In the scarlet fever, on account of the difficulty of removing the morbid stimulus, the irritation has sometimes become so violent as to threaten inflammation of the brain, indicated by delirium, fiery eyes, extreme restlessness, burning thirst, &c. ; so that I have been obliged to use, in conjunction with anthelmintic purgatives, local and general bleedings, with copious diluent and cooling draughts, as whey with tamarinds, &c.



## CHAPTER IV.

## THE SMALL-POX, AND ITS CURE.

THANKS to the admirable discovery of vaccination,—for which the human race is indebted to the celebrated English physician Jenner,—there is reason to hope that in a short time the *small-pox* will be entirely unknown among well-ordered nations. But, notwithstanding all the provident cares of Governments, this malady—which is not improbably considered as exotic in Europe, and will be as indigenous as all the others—is not yet extinguished. The difficulty of explaining some natural phænomena, and the impatience to have them explained, have oftentimes induced philosophers to adopt vain conjectures, which, once admitted by necessity, and subsequently received, from respect by some and from blindness by many, were at last considered as infallible truths by the generality of mankind; such are, I think, all the miasmata to which is ascribed the propagation of a considerable number of diseases, and as to which, for less hypothetical reasons, there



is room to entertain great doubt. And I dare affirm that the small-pox in itself is a very simple disease, and that it becomes violent and fatal only when it is rendered confluent and malignant by the action of a morbid stimulus in the digestive organs ; and that when physicians shall be persuaded of so important a truth, and shall succeed in discovering effectual remedies for destroying the two causes above mentioned, not only vaccination will be constantly attended with success, but also the small-pox itself will no longer be a cause of so much deformity and even of death.

Vaccine inoculation is a real preservative from small-pox ; but it may sometimes fail of its admirable effects : and there are instances from which the enemies of all useful truths have drawn arguments to discredit so important a discovery. The cause of the melancholy results with which it is sometimes attended, ought not to be ascribed to vaccination, but to a predisposing morbid state, proceeding either from worms or from other heterogeneous substances ; and I could easily demonstrate by many cases the futility of all unfavourable impressions entertained against vaccine inoculation, and the soundness of my opinion. The reason why many children, who seemed to

enjoy the best state of health before vaccination, have become languid and affected with incurable disorders after it,—and why many others, who although they have had the eruption are subsequently visited with small-pox and die,—is only to be found in their state of predisposition. I have had occasion to vaccinate a great number of children, and always had the satisfaction of seeing them do well ; but I never omitted, previously to the operation, to free the gastric canal from heterogeneous substances by proper anthelmintic purgatives. This prudent precaution taken by other physicians also, has been always followed by a favourable result ; and when children of suspicious health have been brought to me, I have deferred the operation until I was certain that they were free from any kind of complaint ; and consequently I never had the mortification of seeing among my patients either spurious vaccination, disease, or small-pox. It therefore appears to me that the bad effects which apparently seem to arise from vaccine inoculation, proceed from nothing else than a verminous and morbid stimulus in the alimentary canal.

For the rest, the distinct or benign small-pox is in itself a disease of so little consequence, that

it does not even oblige the patient to keep in bed ; and if parents will take the precaution to cleanse their children's bowels with appropriate anthelmintics as soon as they perceive an alteration in their health (especially in the occurrence of those diseases which, from their being more frequent in one season than in another, are considered to proceed from some contagious miasmata), neither the small-pox nor any other disorder will become severe, as has hitherto been frequently the case. It is but of little use to know whether the violence of the fever is according to the degree of confluency of the small-pox, or the confluency according to the state of the fever. In the small-pox we have the fever, and the eruption of the pustules, which distinguishes this from the scarlet fever, from the miliary fever, and from all other fevers. We have in these morbid effects one malady only, whereof either the fever or the eruption of the pustules must be the effect. If this malady and all its symptoms proceeded from an unknown cause, and the violence of the disorder were in direct proportion to the power of this same cause, it ought to be considered as indigenous and not foreign, that is, brought from distant countries ; for the different



modes of appearance of this disease in countries far remote from any foreign intercourse, would show that it arises among us in different degrees of violence. In fact, we cannot otherwise explain the reason why in the same country the small-pox is seen as benign one year, confluent another, and benign again some years afterwards. In order to support one absurdity we must admit many others ; so that it has been concluded by some, that this supposed miasma may remain for some years adherent to bodies, in spite of all the means employed to prevent infection ; but they have no reason to support opinions so inconsistent with facts. It is matter of fact, that the cases are frequent in which, in the same district and at the same time, whilst the small-pox appears in some as confluent or malignant, and proves fatal, it develops itself as benign in others. This circumstance clearly proves that the benignancy or the malignancy of the small-pox entirely depends on the state of the patient's constitution, and not on the real power of any contagious principle. Moreover, the symptoms which aggravate the malady, and become fatal to the patient, are entirely the same as those which attend all the other malignant fevers, viz. effects proceeding

from the derangement of the circulation. Some indeed are of opinion that the fatal results of this disease depend on the quantity of pustules, which, affecting viscera essential to life or to some important functions, may effect so great a derangement in them as to occasion death, or the extinction of the functions inherent in their organic modification; as when a large number of pustules appear in the throat, in the alimentary canal, on the brain, in the lungs, and on the eyes, &c. But even supposing it were true, that the eruption of the pustules be according to the degree of weakness of the constitution, it would be no less true that the morbid stimulus of worms and noxious substances in the alimentary canal is the cause of the intenseness of these effects, and that a cure cannot be obtained unless the treatment be directed against this cause and the debility of the constitution, in the same manner as I have already pointed out for all other fevers.

In the year 1827, when in some parts of this populous city the small-pox was very destructive, I was called to attend a young man of twenty-three years of age, who four days before had been attacked by the confluent small-pox, accompanied with a severe burning fever, large and

painful swelling of the abdomen, excessive difficulty of breathing, and suppression of urine. I learnt that for the last five days he had had no stools ; so that after having acquired the necessary information respecting the constitution and habits of the patient, I prescribed for him, without hesitation, two scruples of wormseed (*Artemisia Judaica*), twelve grains of *Valeriana silvestris*, a scruple of jalap root in powder, and six grains of *Calomel*; the whole mixed in four ounces of water sweetened with sugar. The patient, a short time after having taken this medicine had very copious and fetid stools of indurated feces, mucosities, and seven large worms (*lumbricoides*), followed by a speedy decrease of all the symptoms ; so that the small-pox went on gradually towards a favourable issue, without occasion of administering any other medicine than a thin decoction of barley with some drops of *spiritus nitri dulcis* to allay the thirst.

If on the appearance of the first symptoms of any fever whatever, the precaution be taken of purging the child with some anthelmintic medicine, then, upon its due operation, neither the fever will make any progress, if the case be a simple



fever, so that we shall only have an ephemera ; nor will the small-pox be confluent, if the fever have been only a precursory symptom of this disease. I know well that it is not very easy to induce children to take medicine, and that even some parents have an aversion to make them take it, whilst others are too ready to give it on trifling occasions ; whereby, instead of benefiting, they injure their children's health even by the use of the best remedies. But whether the violence of the malady has not been prevented in time by administering proper anthelmintics, or that the use of these medicines has been ineffectual—as soon as the small-pox shows itself confluent, recourse should be had to those means which are at least proper to protect from the pernicious influence of the pustules those parts which they would most injure. We perhaps have no direct power as regards the principal organs essential to life ; so that if they be naturally weaker than the other parts of the body, and consequently more liable than any other to be affected by the pustules, life is in great danger under such circumstances, and the small-pox is always fatal. There was an instance of a youth of twelve years of age not vaccinated,

who had a leg broken at the time when the small-pox was on the point of coming out upon him; no sooner was the fracture reduced, and the proper bandages applied, than all the circumference of the fracture was so covered with pustules of small-pox, that it was necessary to remove the bandage and leave the broken bones without any, no pustules appearing elsewhere. In this case, the two maladies regularly proceeded to a favourable issue, each according to its peculiar course: and it is known as a fact, that a child who was whipped by his mother on the bottom, when he was labouring under the fever of the small-pox, had his bottom covered with pustules, while the rest of his body remained entirely free from them. It happened also not long ago, that a child was violently affected with a painful cold in his feet at the time of the eruption of the small-pox, and that after a fruitless trial of every means to restore warmth to them, a slice of bread dipped in hot vinegar and sprinkled with mustard was applied to the soles of the feet: this process was followed by a copious eruption of pustules round the feet, with a simultaneous peeling off of the hardened skin

of the soles, while every other part was unaffected.

These and several other similar facts demonstrate, that the confluency of the small-pox depends upon the degree of the predisposition of the constitution ; that the most benign small-pox may become confluent only in some parts of the body, according to the degree of the predisposition of those parts ; and that by means of some topical corroboratives we may render one part less liable than another, and consequently determine the pustules nearly where we please. A great number of methods have been proposed for protecting the nostrils, the throat, the mouth and the eyes, from the influence of the pustules ; but they do not fully answer our wishes, because the supposition of their efficacy is founded only upon the fallacious observation, that all medicines are good in some cases for all diseases, and various in their operation, so that the use of them may oftentimes become more detrimental than beneficial. Substances of an astringent and slightly stimulating nature are the only ones which can be rationally administered, and from which the best effects may be expected.



“Boil one ounce of Peruvian bark or oak bark in a pound of water, until reduced to two-thirds. Strain and add half an ounce of diluted sulphuric acid (spirit of vitriol).”

This preparation, with the following addition, will prove the best preservative.

“Take a piece of fine linen dipped in this decoction made tepid, wash the eyes two or three times a day, and dry them gently with another warm piece of linen. Keep the eyes from the air and light, by means of two small warm folds of linen containing some saffron in powder, and camphor; and take care that they be warmed every two or three hours to a mild and agreeable temperature. If the patient can gargle, let him do it twice a day or oftener with the same decoction; if not, add to it an ounce of common syrup, and give him several times in the day a teaspoonfull of it, either in lukewarm water, broth, wine and water, or barley water.”

If the disease be tractable, though it may have some degree of malignancy, by uniting this mode of treatment with that which I have already indicated for fevers, we may expect a fa-

avourable result. I have had several occasions of experiencing that the great havoc made by the small-pox mostly arises from improper treatment.

It is not necessary that I should take upon myself to describe the entire progress of small-pox, through all the various stages or periods which have been assigned to it by medical writers; nor the minutiae of the care which should be taken of the patient during its continuance. It is only the fallacious supposition that every disease must necessarily have a certain course analogous to its nature, that has led some practitioners to think that all that can be done, is to moderate it if too violent; and they have even gone so far as to believe that its progress should be assisted when it seems too slow. But who cannot perceive that a practice derived from so false a notion is inconsistent with the real object of medical art? If the different stages of a malady had not been erroneously considered as so many separate and essential diseases, such blunders certainly would never have been committed.

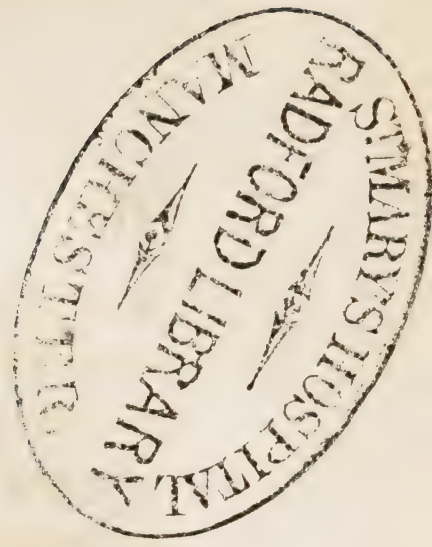
It is commonly said, that in the confluent small-pox the pustules must coalesce in the second stage of the malady; and that when they do not come out quickly, medicines should be given to

forward and increase the efflorescence. But if we would only reflect that the confluent small-pox is merely an effect of a greater degree of violence of the same malady, we should not be so eager to make it declare itself sooner, as this is nothing else than to render the malady worse. The various effects of fire upon the animal organization are so many different kinds of burns, viz. slight, severe, or gangrenous. It is clear that these different burns vary from each other only according to the force with which the fire has acted. We can make on the body burns more or less severe by a more or less protracted action of a red-hot iron upon it. It is consequently apparent, that the effects which constitute the greater injury of the burns depend only upon the continued action of the fire, and they would have been less intense had the contact of the red-hot iron with the skin been of a shorter duration. So with regard to the small-pox:—it may be said that to promote the appearance of the pustules is the same as to increase the violence of the malady, because the object of some pretended skilful practitioners in administering their medicines, is often frustrated, and the result more hurtful than beneficial. If we judge



according to just criteria, we shall soon be convinced that the fever is the only malady which we ought to have regard to in these cases, and that the small-pox will always be benign when no cause exists which may reduce the constitution to a state of great weakness and render the fever malignant. Let this malady be carefully examined, and it will be found that all the symptoms which render it severe and dangerous, partly belong to the action of a morbid stimulus in the alimentary canal, and partly are successive effects of the derangement of the circulation ; that is to say, of the fever. And these two circumstances are the only ones which are worthy the attention of medical men.

Although in England vaccination is generally practised, so as to make an essay upon small-pox less important, yet as it frequently happens that this malady appears before vaccine inoculation has been performed, and even sometimes afterwards, I have not deemed it entirely useless to give a general idea of this disease, in order to prevent, at least in some cases, the severity of its effects.



## CHAPTER V.

### MEASLES, AND ITS TREATMENT.

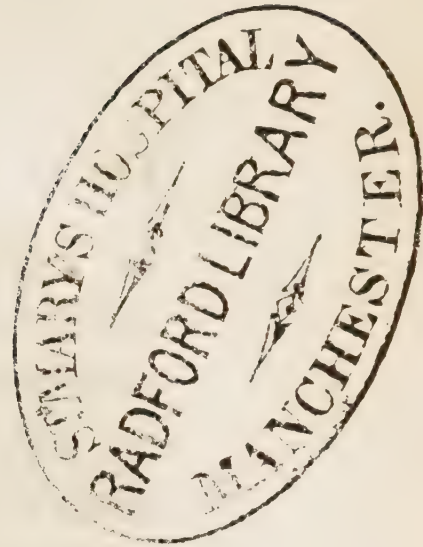
THIS malady is also generally thought to be an exclusive effect of a peculiar contagion, because like the small pox it appears to be communicated from one to another, and develops itself in many individuals at the same time. It has also been now and then fatal, which is not to be wondered at ; because in this disease children are affected by a fever under a different morbid appearance, which may become malignant and fatal, like all other fevers, whenever it appears in bad constitutions, or the method of cure is improper ;—especially when there are worms combined with heterogeneous substances in the alimentary canal, as is frequently the case.

At Barcelona, in the year 1823, the measles were so destructive among children, that the number of funerals proceeding by dozens one after another through the streets of that city, inspired the spectator with horror. Amongst a hundred and seven patients that I attended, I

had only to regret the loss of two children (belonging to the same family), owing probably to the weakness of their constitution, which did not allow of my giving them the requisite active anthelmintics. All the others were cured by the simple administration of remedies proper for destroying the noxious action of worms and heterogeneous substances collected in the digestive organs.

Notwithstanding this malady mostly appears to be of an epidemic character, and is attended with a dry and violent cough, which precedes it for some days, so as to give occasion to suspect the existence of an inflammation of the chest, which would require a different treatment,—I assert from my own constant experience, that the only proper treatment, which is one and the same in all, ought not to differ in the least from that which I have already laid down for other fevers; because in this, as in other maladies, the alteration which appears in the organization does not require to be particularly considered with regard to the different nature of medicines intended to remove it.





## CHAPTER VI.

### INFLAMMATION, AND ITS CURE.

THE term "inflammation" is taken from the heat and redness arising from the more or less considerable flow of blood, which violently distends the small blood-vessels of some parts of our body. This disease may be considered as the first degree of altered organization, and as the first effect of a disordered circulation, when the sanguineous vessels have been brought to a violent distention by an increase of the impellent power of the blood.

Inflammation is either developed in consequence of internal causes, or is the effect of some external violence capable of debilitating the sanguineous vessels to such a degree, as not to be able to resist the natural impulse with which the blood regularly circulates through them.

It is not one appellation rather than another which ought to interest the really philosophical physician. We may call this state *inflammation*,

but we ought not to admit essential differences in those alterations, the appearances of which vary only in consequence of some accidents depending upon the seat of the derangement, the violence of the malady, its progress, and duration.

When the impellent power of the blood is increased by the altered motion of the heart and arterial system, the blood-vessels which have not sufficient strength to resist it, will necessarily be subjected to some violent distention. In this state, consequently, they admit a greater quantity of blood than they, in their natural state, contained ; and they must also appear to our senses of a greater diameter and of a greater number, because many of them which on account of their smallness could not be seen, become visible. The part wherein a greater number of these vessels is affected with this alteration becomes more elevated, more red, more hot, more distended and painful, because the violent distention occasions the pain, and the part appears inflamed. But whatever be the part affected wherein the blood-vessels are brought to a violent degree of distention, and whatever the number of the vessels distended and the degree of the distention, the malady will not in any re-

spect be different. A sharp weapon may effect a solution of continuity in our organization, which may infinitely vary in its seat, direction, extension, and shape : according to the part affected, the wound will be more or less difficult to be cured, and may even prove mortal ; but it cannot be considered as an essentially different disorder every time it is varied as to its circumstances. It will indeed require a particular method of cure, as regards surgical skill, which will have a direct influence upon it ; but the cure, which is in all maladies the exclusive work of nature, (and to which object we ought to direct our care, with a true knowledge of the cause,) does not require a particular application of remedies. The lips of the wound being brought together, and all the obstacles which might prevent the reproduction of substance removed, it is obvious that nature alone will complete the cure. How, in the violent distention of the sanguineous vessels, is there any other indication to be observed, than that of removing the cause which works such effect ? The cause being removed, is not the cure the exclusive effect of nature ? Why then should we multiply objects without necessity, by considering the in-



flammation of one part of our body as essentially distinct from that of another, and call it by a different name ?—a distinction which serves merely to perplex the mind of the professional man, and to lead him into a chaos of error, which renders the healing art not only difficult and tedious, but even prejudicial to the patient.

Although no definition has yet been given of *inflammation*, with any just knowledge of the cause, yet all the fathers of medicine have observed, that by diminishing the mass of blood we constantly obtain some relief ; because by these means the immediate cause of the violent distention, which is no other than the blood itself, is diminished. But they have also observed, that the malady is not always to be removed by the subtraction of blood alone, and that it is most frequently rendered by this operation more violent than before ; and therefore they have been obliged to conclude that, besides the abundance of blood, there must be some other cause of the *inflammation*, which having sought for in their own imagination, instead of applying to the phænomena of nature, it need not be a matter of wonder if they have never found. The blood is certainly the proximate cause of the inflamma-

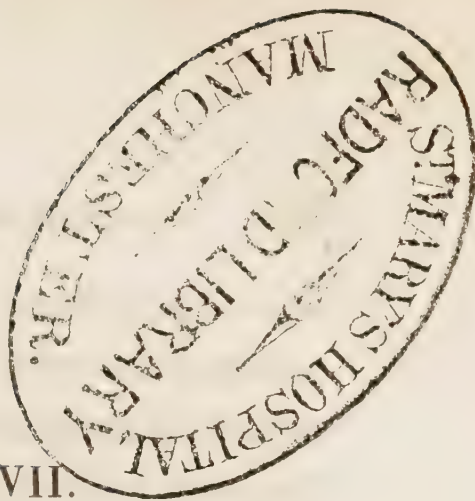
tion: not that it contains any heterogeneous principles in itself, nor that it is vitiated; but simply because it is driven with too much violence against the membranes of the blood-vessels, relatively to their resisting power. The inflammations which are occasioned by external violences, the action of fire, or the rays of the sun, and the very calm which patients always experience after bleeding, although the malady should afterwards become more violent,—are sufficient proofs to convince the most obstinate and prejudiced, that inflammation is nothing more than a preternatural distention of the blood-vessels; nor is the transudation of serum from the arteries which occupy some tract of the neighbouring cellular substance, to be considered a circumstance of great importance in this account.

But heat, redness, tension, and pains, all immediate effects of violent distention, are not always perceived by our senses, neither are they the only effects of this organic alteration\*. The seat of the disease or alteration conceals sometimes the symptoms which characterize the in-

\* We must take care not to confound organic alteration,—that is to say, the alteration of the organization,—with organic malady.

flammation,—viz. heat, redness, tenseness, tumefaction, &c.,—and offers instead some other signs, which are mere effects of the alteration itself; and this is the reason why this same malady sometimes assumes various characters, and constitutes in the opinion of the multitude as many essential and distinct maladies, as are the appearances under which it shows itself to our senses. In support of these observations, I shall describe some of the most frequent inflammatory diseases; from the most simple, to the most complicated and severe.





## CHAPTER VII.

## COLD, OR CATARRHAL FEVER.

WHEN children go from a warm to a very cold atmosphere, or from the cold air to the warm, the parts of the body most exposed to the action of the cold or heat,—as the nostrils, fauces, windpipe, and bronchia, through which the air designed for respiration passes,—become weak ; and the blood-vessels intended for the support of these parts being debilitated, yield in a greater or less degree to the impellent power of the blood, and fall into some degree of violent distention, which constitutes a slight *phlogosis*, or inflammation. This inconsiderable alteration appears accompanied with a discharge of mucus from the nose, and more or less difficulty of breathing through the nostrils, so as to oblige children to breathe with the mouth open, and to sneeze frequently.

The sanguineous vessels which belong to the glands that secrete the mucus being brought to a greater degree of distention, admit a greater

quantity of blood than usual, in consequence of which the secretion of this excrementitious substance increases. The membrane lying against the posterior opening of the nose being rendered somewhat hard, loses its flexibility, and consequently prevents the passage of the air through the nose ; and the membrane covering the cavity of the nose being extremely sensible, is easily irritated by the afflux of mucus, so as to excite sneezing. When this indisposition arises from no other cause than a debility of the blood-vessels, if children so affected be kept in a proper temperature it will soon disappear. But if after twenty-four hours it does not abate, we must infer, either that the debility of the vessels is very considerable, or that the impellent power of the blood is increased beyond its natural state by the reaction of the heart and arterial system (fever), and that consequently the malady has for its cause a morbid stimulus in the alimentary canal. In both cases we must apply an appropriate method of cure, should even the morbid stimulus consist only of some substances difficult to be digested, or heterogeneous and fæcal matters easy to be expelled, which even left to the simple action of nature alone might be over-

come. Where the morbid stimulus consists in heterogeneous substances difficult to be expelled from the alimentary duct, or the sickly state of the child arises from the presence of worms, the malady may grow worse, so as even to threaten life.

When the malady has for its cause a mere debility of the sanguineous vessels, the patient in general will recover in a day or two, by simply applying on the nose a piece of linen twice doubled, dipped in a very warm lotion of three parts of water and one of vinegar, well squeezed, and covered with another piece dry and warm, folded up and somewhat larger than the other, which must be warmed every two hours. The recovery will appear by the free breathing from the nose and the decrease of the mucous discharge. If this application does no good, it is clear, as I have said before, that if the malady persist and grow worse, it is in consequence of the altered circulation of the blood. Nor must we think that such alteration should be apparent from the pulse,—for who can determine in children a fixed point in the natural circulation? Many among the vulgar think that the pulse is a faithful guide in all maladies, and that it clearly



shows to the fingers of some physicians all the phænomena of the animal œconomy ; and there are also medical men, very estimable in other respects, who, misguided by their fertile imagination, still give sanction to the credulity of the ignorant. But would it not now be a folly to indulge in such visions and specious reasoning !

The pulse is the sign of a function which may be altered at every moment by an infinity of fortuitous circumstances. We cannot through the pulse perceive the cause which may in so many different ways alter this function, and consequently the most perfect knowledge of variety concerning the pulse is of little importance for the purposes of medical art. We may sometimes through the pulse foresee either the derangement of some viscera, or the approach of death ; but very seldom can such a knowledge be of any utility to the patient.

Since the malady arises from the reaction of the heart and arterial system, it can only be cured by restoring the circulation, which cannot be expected unless we remove the morbid stimulus that increases the motion of the heart. The symptoms which appear manifest to our senses, are effects of some alteration in the ani-

mal œconomy ; and whatever may be the cause of this alteration, so long as it is inconsiderable, the symptoms, which must correspond to it, are constantly the same, whether the malady be shortly overcome, or make rapid progress owing to the continuance of the cause.

Those who believe that similarity of symptoms denotes a perfect analogy both in the diseases and in the treatment, are greatly mistaken ; for the same malady, though left to nature alone, or even improperly treated, may be cured in a few days, when occasioned by the debility of the blood-vessels ; but the malady may increase violently and become complicated, when it proceeds from a morbid stimulus in the alimentary canal. This is the reason why the same disease has frequently been successfully cured by remedies of a contrary nature. This may also explain why some medical writers recommend in these disorders a curative method entirely in opposition to that recommended by others, all advancing experience on their side. Finally, this is the reason why many maladies have been thought to disguise their character.

If the illness resist the simple treatment which I have mentioned above, we must direct the cu-

rative indications towards the morbid stimulus in the alimentary canal, even when this cause does not appear accompanied with any other morbid effect ; since to prove the existence of this stimulus, it is not necessary, as I have already observed, that it should be so violent as to affect the circulation of the blood.

We ought never to make use of violent remedies without necessity ; or in other words, we should not disturb the regular course of nature without a real motive ; nor should we administer any kind of remedies without positive reasons. Let us, therefore, begin the treatment with a gentle purgative, but not altogether so weak as only to set the bowels in motion without effect, as is commonly done. Since we are obliged to disturb the digestive organs, and occasion a sensible alteration in their important functions, let us make use at least of some medicine powerful enough to expel the morbid stimulus from the alimentary canal. For example : it is generally thought that such a disease proceeds from heat, and that we want only to cool the body ; in fact, tamarinds, cream of tartar, some purgative salts, and even a simple diet alone have very frequently freed the alimentary canal from injurious sub-



stances easy to be expelled, and thus performed the cure. The heat occasioned by the derangement of the circulation ceases under the action of these remedies, and they are therefore considered as substances of a cooling nature. We may say the same of the refrigerative decoctions, whey, &c. But when there is real occasion to administer remedies, it is necessary to employ those which agree with the curative indications to be followed in the treatment of the disease. If we knew what injuries are frequently occasioned by inconsiderately taking medicines to no purpose, or even by taking them when really necessary, but improperly chosen, there would not exist perhaps in the materia medica so many useless preparations, nor should we meet with so many obstinate disorders.

We must especially abstain from giving improper medicines to children, both that we may not unseasonably interrupt the digestive functions so important to be attended to in children, nor accustom the alimentary canal to their action, so as to become inefficacious when they are positively requisite. Medicines generally considered of a cooling nature, such as the above-mentioned, do nothing more than agitate the

body by procuring some watery discharge, and consequently serve only to debilitate the constitution. For this reason I have for many years abandoned their use, and with such advantage in my practice that I certainly cannot recommend them to others. I frequently have seen a malady become most violent in consequence of the administering of a saline purgative, which would have been easily cured by medicines of another nature.

All purgatives debilitate, and consequently are somewhat prejudicial ; but when they succeed in expelling the morbid stimulus, the nausea and gripings which they frequently occasion are compensated by the considerable advantage of having the cause of the malady removed. The injury done by purgatives and emetics is of short duration, as also the relief obtained by bleeding. This momentary injury therefore ought not to prevent us from administering the former when necessary, as a transient relief should not inspire us with too much confidence in the use of the latter. The pains which we feel in the bowels when under the action of purgatives, do not proceed from their injurious quality, but from the brisk separation and motion downward of the

heterogeneous substances existing in the alimentary canal; so that far from being alarmed at these pains, we should consider them as the good effect of the expulsive power of the purgatives. It is to be wished that the public were convinced of this truth, in order that they might not be afraid of the pains and weakness occasioned by these medicines, and might not refuse taking those remedies from which alone they may expect the removal of disease, provided they be administered in doses proportioned to their peculiar activity and the state of the patient.

A gentle emetic is generally to be preferred to all purgatives at the commencement of the malady; and especially when we have reason to believe that it proceeds from a morbid stimulus in the alimentary canal, as we have intimated above. The emetic solution mentioned in the chapter on Fever is the most proper in this case, being one of the most active, and at the same time the least disagreeable to the taste; to be taken in doses of a teaspoonfull every seven or eight minutes, until the first signs of nausea appear. If we wish that it should operate as an emetic, it must of course be given at shorter in-



tervals until vomiting begins. When the patient has a great repugnance to vomiting, we may prevent this solution from operating as an emetic, by giving only a teaspoonfull every quarter of an hour, and discontinuing it on perceiving any degree of nausea produced. By proceeding in this manner, and keeping the child quiet, it will merely operate as a gentle purgative.

There is no doubt that the shock experienced by the alimentary canal, in consequence both of the shudderings preceding the vomit and the vomit itself, is very beneficial. By it the substances collected in these organs are easily removed from the place where they exert their stimulating action, and are more easily expelled. We must also observe, that the removal of the stimulus from one part of the alimentary canal to another, is sometimes sufficient of itself to remove the disorder, whatever may be the character under which it appears. For children from two to seven years of age, two or three teaspoonfulls of the above-mentioned preparation will be sufficient to effect the cure. For children who are still at the breast we must direct the care to the nurse. In this case, let her take the same medicine in the dose of a

tablespoonfull every quarter of an hour until vomiting occurs, unless she should feel too great a repugnance to it.

If after administering the emetic,—that is to say when the general alteration occasioned by those remedies which disturb the regular motion of the alimentary organs has abated,—the state of the patient does not manifestly improve, we must have recourse to purgative anthelmintics, as I have said before. Medicines cannot restore health but by removing the cause of disease, or by neutralizing its action: we must not, therefore, expect that immediately after their action recovery should succeed: on the contrary, their action being merely alterative, relief is only to be expected after some hours, and in general we do not perceive any good effect at least before a day has elapsed; so that we ought not to be so anxious for the improvement of the patient. If parents knew the injury they may do their children by wishing a sudden removal of their complaints, they would not be so eager in seeking every moment for fresh medical advice; apparently showing by this the greatest confidence in all physicians, while they really have none in any; so that all their assiduous care, and the manifold prescrip-

tions which they use, far from being of service, only hasten their children's end.

All physicians generally prescribe purgatives ; but as they prescribe them merely to follow a general rule, more than as a just mode of cure, as soon as these medicines procure evacuations they are thought to have accomplished the desired effect, and they do not take the least notice of the state of the digestive organs, thinking that the malady is completely removed. The most violent effects of the morbid stimulus,—such as the swelling of the belly, pains, diarrhœa, vomiting, &c.,—are considered as mere consequences of the disease, which is mostly ascribed to imaginary causes, whilst the real one is completely forgotten. Abundant stools are not a sufficient proof of the efficacy of a medicine ; it is the improvement of the state of the patient, should even the evacuations be less copious, that proves its power ; for the influence of the morbid stimulus is not in proportion to the quantity of the heterogeneous substances which occasion the malady, but according to the degree of disorder of the constitution. Thence a great abundance of these substances may sometimes be innocuous, whilst a small quantity may occasion



morbid effects of the most violent nature ; although the more or less putrescence of the stagnant substances which irritate the digestive organs, has in some circumstances a great share in the production of the stimulus.

The morbid stimulus being either expelled, or in any way corrected or neutralized, the patient will in a short time recover his former health. Yet it sometimes happens that, notwithstanding we administer the most efficacious remedies, we cannot free the alimentary canal from the morbid stimulus ; the malady increases, and the more violently if it has been neglected or improperly treated. In this case it is commonly said, that the malady was disguised, and that the cold was only a symptom precursive to a disorder which concealed its real nature.

The disordered circulation of the blood is the principal malady, and it is this same derangement combined in its progress with some other fortuitous circumstances, which produces all, or at least the greater number of diseases. We must not think that this important function is violently altered on a sudden : as long as the constitution has not become very liable to disorder, the change of circulation proceeds gradually ; and

during the slow progress of the illness, we have various periods which physicians call *stages*. When the first stages of illness gradually predispose the constitution to excessive derangement, we have in them the precursive symptoms of that malady, which is characterized by the violence of the effects themselves. So that if it is merely a question of violent distention of the sanguineous vessels in some part of the body, we have various inflammations known under many peculiar names, taken either from their seat or from their degree of violence, as will be seen in the following chapters. If the matter in question be fever, we have likewise the various names of inflammatory fever, rheumatic fever, typhus fever, &c.

## CHAPTER VIII.

### RHEUMATISM, AND RHEUMATIC PAINS.

RHEUMATISM consists in an inflammation, more or less violent, of the muscles, or of their tendinous parts, sometimes local, sometimes more extended, the nature of which does not differ from that of all other inflammatory diseases. Rheumatic inflammation, however, does not appear to our senses accompanied either with redness or heat, and is sometimes even free from swelling, particularly when it occupies the tendinous membrane or other aponeurotic expansion. Rheumatic pains may occasionally result merely from weakening causes which have acted on some parts of our body ; in which case the blood-vessels being no longer capable of resisting the impulse of the blood, are more or less violently distended by its action ; a distention which becomes apparent by a pain more or less intense, as when we have been exposed to a draught of cold air blowing on any part of our body. Any one, for example, who remains for some time



near an open door, through which the air blows on one of his legs, shoulders, arms, back, &c. ; or exposes himself bare-headed to the night air when not accustomed to it, or allows the perspiration to dry upon his body, &c., will surely incur a rheumatic pain ; or in other words, that violent distention of the sanguineous vessels, attended with more or less acute pain, which is called rheum, rheumatism, or rheumatic pains. It is obvious, therefore, that this disease, and the cold or catarrh which I have above described, differ only in the seat of the altered circulation, and in the degree of violence of the malady ; for in rheumatism the supernatural distention of the vessels is attended with some pain.

When this malady proceeds from no other cause than the debility of the affected part, external applications of some mild strengthening or stimulating kind will suffice to remove it. Camphor dissolved in spirits of wine, or volatile liniment locally applied, keeping the part covered with a warm cloth, or gentle rubbings with a warm piece of flannel, protecting the part affected against cold, will be found effectual means of removing the disease. Finally, any thing capable of affording strength to the affected part,

—as sea-bathing, and the keeping it from the action of the cold,—will sometimes be sufficient to perfect the recovery \*.

But as cold or catarrh may proceed from the reaction of the heart and arterial system ; or in other words, from the derangement of the circulation (fever); so rheumatic pains may proceed from the same cause. In this case, if the fever be considerable, and attended with other febrile symptoms, it becomes the principal malady, and obtains different appellations. In some cases it is called catarrhal fever, in other instances rheumatic fever, and sometimes catarrhal rheumatic fever ; if the patient has a sound constitution, it takes the name of inflammatory rheumatic fever ; if he is of a weak constitution, the fever will be called lymphatico-nervous rheumatic, and so on. Brown used to determine the different species of rheumatism according to the action which causes the malady ; and therefore he considered cold only as a predisposing cause, and

\* When the rheumatism is fixed in any large muscular surface, as the loins, &c., in a subject of a robust and plethoric constitution, the taking away blood by cupping or by leeches will be very beneficial ; a strong blister kept open two or three days or more, according to circumstances, will also be of great efficacy.

ascribes rheumatism to the successive development of heat, concluding that heat is the stimulus that excites the rheumatic inflammation,—an opinion which is proved erroneous by examples of inflammations arising only from the action of cold, as is observed by Burns in regard to peripneumony, which frequently appears whilst the patient is exposed to the action of the cold. If the rheumatic pain is more considerable than the fever, the former is considered as the principal malady, and the fever is only considered as symptomatic. In this latter case, the different seats of the pain constitute as many essential differences, which gave occasion to class them as so many different maladies, distinguished from each other by peculiar appellations ; so that it is called *rheum*, or *rheumatalgia*, when it affects the head, the neck, an arm, &c. ; *lumbago*, when it occupies the loins ; *sciatica*, when it is fixed in the neighbouring regions of the hip ; *arthritis*, when it affects the joints, though indeed this term is particularly applied to the inflammation of the capsular ligaments, mostly attended with swelling, redness, and burning : it is this very malady which assumes likewise the appellation of *gout*, distinguished by the various sub-



divisions of *podagra*, when it affects the foot ; *gonagra*, when it attacks the knees ; *chiragra*, when it is confined to the hands ; and assuming the more general appellation of *arthritis*, or *arthritic gout*, when it extends itself over all the articulations.

From what has been above related, we may easily comprehend how, in these maladies,—I mean in rheumatism, as in many others,—medicines improperly administered, chance to prove efficacious ; such as bleeding, leeches, fomentations, and many quack medicines ; and how these same methods of cure have been in many other circumstances most injurious and fatal. Whatever therefore may be the seat of the malady and the violence of the attending symptoms, as soon as the rheumatism appears with fever, the treatment must constantly be directed to remove the morbid stimulus from the alimentary canal—the real cause of the fever,—and to invigorate the affected part with topical stimulants. And recourse must be had to bleeding, whenever, in consequence of the inflammatory character of the disease, the pain does not soon abate after the administration of remedies suited

to overcome the proximate cause existing in the gastric canal.

The treatment and medicines recommended to carry off the fever and cold are also advisable for this disease ; and we may be certain that by properly treating the patients from the beginning, we shall have no chronic rheumatism, no nervous sciatica, no concretions at the articulations, to fear ; and no occasion to apply to blisters, cauteries, setons, burning moxas, sparks of electricity, mercurial frictions, and the manifold mineral waters, and baths, which mostly augment disease as effectually as all the specifics carried about by quacks and other impostors.

If the rheumatism prove untractable, in consequence of the bad constitution of the patient or the difficulty of freeing the alimentary organs from the morbid stimulus, it will then be advisable to try the various means which practice has sanctioned as useful, at least as palliative. Such are tepid or warm bathing in common water, vapours and dry fomentations of juniper berries, sugar, &c. The dipping of the part affected in cold water for two or three minutes, going immediately after to bed, and drinking freely either

of warm beer or any other beverage proper to promote perspiration, may be highly useful. Baths, pumpings, sulphureous baths, either natural or artificially made with sulphureous acid of potash or chalk, may be also resorted to with some advantage. The same may be said of the wearing of a flannel shirt, and application to the feet of substances proper to promote effectual perspiration. The rubefacients, such as the plaster of gum ammoniac, and squill vinegar, mustard poultices, plasters of resins, the camphorated volatile liniment, tincture of Spanish flies, the extract of aconite taken inwardly from half a grain to three grains, the alcoholized tincture of guaiacum, turpentine or its spirit, the decoction of *Solanum dulcamara*, Linn. and *Daphne mezereum*, Linn. &c., will also prove useful.



## CHAPTER IX.

## ERYSIPELAS, AND PHLEGMON.

ERYSIPELAS is a superficial and lightly-elevated inflammatory swelling of the skin of a considerable extent, attended with a bright redness and burning heat, which becomes whitish by a slight pressure of the finger, and resumes its redness as soon as the compression ceases; occasioning a slight sensation of pain and itching. Its colour, sometimes yellowish, insensibly decreases to a determined circumference, without fever, or if any, generally inconsiderable. When the redness, burning, and tension are more severe, the swelling more considerable, and the fever greater, the malady takes the name of *Phlegmon*, which, if it is of a small size, such as that of a shilling, with its centre more elevated, it is then called *furuncle*, of which I shall speak hereafter.

These two maladies are in fact the same, and vary only in the degree of distention of the sanguineous vessels caused by the impulse of the blood against their repulsive force, and in the

extent of the alteration which constitutes the disease. In Erysipelas, the distention of the vessels is little above the highest degree to which these vessels can be brought without losing their elasticity. The predisposition of the blood-vessels not being in this case considerable, this disease is mostly cured in a few days by means of local applications only. In Phlegmon there is a greater predisposition of the vessels, or a greater impulse from the blood, or both; and for this reason the malady proceeds more violently.

All inflammations appear under one of these forms. Sometimes these violent degrees of distention of the blood-vessels are not observably distinguished from each other by their exclusive characters of erysipelas and phlegmon; and it is for this reason, that, when they partake more of the one than of the other, the appellation of one of the maladies serves as an adjunct to the appellation of the other, which is the principal. So that sometimes we have a *phlegmonous erysipelas*, and sometimes an *erysipelatous phlegmon*. We give such names to these maladies only when they attack the common integuments, and the cellular membrane underneath. When

they attack important viscera, they acquire various names, from the seat of the inflammation ; and the degrees of violence are distinguished by the terms of simple, benign, malignant, &c.

The opinion that inflammation, like fever, should be considered under four different aspects, —that is to say, the commencement, the increase, the crisis, and the termination,—is not entirely abandoned ; and pathologists have described the symptoms which were considered as peculiar to these different stages : for it was commonly believed, that the remedies proper in one period would no longer be so in another ; as if the malady had as many essential differences as periods, even as regards its cause.

A little reflection will make us perceive the absurdity of such an opinion, though it is still embraced by some physicians : for the illness subsides as soon as the cause is removed ; and the less progress it has made, the easier will be the cure. If it were true that an inflammation necessarily ought to go through these stages, it would be useless to recur to medical aid at the beginning of the malady ; and the fact would be in opposition to the axiom, *PRINCIPIIS OBSTA*, generally recommended by all the fathers of medicine.



But, say practitioners, it is from the beginning that every malady ought to be treated, in order to check its course, which would otherwise increase: and their means to retard the progress of inflammation, or to lessen its violence, are bleeding, debilitating medicines, and contra-stimulants; in short, the *antiphlogistic treatment*. How can we say that by these means we shall obtain the desired effect? Who can assure us that by these prescriptions and this practice diseases will not be increased? Some illusive appearances have induced the ancient practitioners to believe, that by loss of blood nature has been freed from an excess of this animal substance; because they had observed, that after this loss their patients recovered; and they consequently thought that bleeding was an imitation of what nature performs. The immediate relief which bleeding affords to patients recommended this operation as an essential remedy, whenever the blood-vessels appeared too much distended. Skilful physicians have attached great importance to this, perhaps more than it deserves. The madness of theory frequently rendered it destructive, especially in France and Italy, in consequence of the erroneous interpretation given to the Brownian

doctrine, which misled even the most learned men. Many skilful practitioners, however, were at length undeceived; and, guided by reason and experience, discovered how prejudicial (generally speaking) subtractions of blood are in the beginning of inflammations, and how delusive is the momentary relief which succeeds bleeding\*. In inflammations proceeding from internal causes we have only secondary diseases; and though

\* In the long and rapid marches which armies are obliged to make in times of war, especially at the beginning of winter and the opening of spring, it is very perceptible how subject the soldiers are to inflammatory fevers and peripneumonies. When I was in the army, the soldiers of my regiment daily afforded me convincing proofs that the inflammatory fever, or *synocha*, (treated from the commencement with emetics or other purgatives proportioned to the patient's constitution,) may be immediately removed, without having recourse to blood-letting; thus avoiding (an object of great importance) long convalescences, so prejudicial to the military service, as well as to domestic affairs. I may say the same as regards peripneumonies; which, although they had attacked my patients with severe symptoms; such as acute pains in both sides of the chest, great difficulty of breathing, painful cough, violent fever, burning skin, profuse perspiration, strong, frequent, and hard pulse, scanty and red urine, costiveness, restlessness, extreme redness of the eyes, unquenchable thirst, &c.,—were cured with purgative anthelmintics, or even with active evacuants, without the necessity of resorting to bleeding in more than two cases in a hundred, as secondary means to stop in obstinate cases the inflammation and pain. Whence we may

their attack mostly follows the principal malady, constituting the cause, that is to say, the alteration of the circulation (fever), with such rapidity as to make it impossible to foresee or prevent them, still they are merely symptoms of the fever, which being removed, they also will commonly yield to the treatment without any local application\*. Nor is it true, that inflammations ought to go through the different stages attri-

conclude, that if the malady proved obstinate, it was only on account of the difficulty in removing the morbid stimulus existing in the alimentary canal.

It is not only among soldiers, labourers, and such classes of people, subject to great fatigue, that I have generally succeeded in removing these diseases without bleeding; but also among persons of a more easy condition, whatever might have been the cause which had predisposed them to this kind of inflammatory disease: and I had always the advantage of avoiding tedious convalescences, often dangerous, especially when, during the course of the malady, the subtractions of blood have been copious;—circumstances which will bring the patients into chronic, incurable, and mortal distempers. So true is it, that the momentary relief following bleeding is merely delusive, that if we do not succeed by evacuants and diluent and refrigerant potions to correct and free the stomach and intestines from the injurious substances there collected, the peripneumony, or the inflammatory fever, reappears with greater violence, bleeding becomes necessary again, the patient's life is in great danger, and the consequences above mentioned become unavoidable.

\* It may however happen, that although inflammation in the above-mentioned case be a symptom of the fever, this lat-



buted to them ; or at least such stages require no particular attention as regards the treatment.

If the practitioner who finds in these stages so many important differences, and regards the fever more as an effect than as a cause, may perhaps deserve some indulgence on this head, the error is so apparent in what relates to the terminations of inflammation, that it is to forsake common sense to allow it even the least weight.

These terminations were generally thought to be four, especially by surgeons ; viz. *resolution*, *suppuration*, *induration*, and *mortification*. But who does not know that suppuration, induration, and mortification, are not terminations of the malady, but processes ? It is only by resolution that we obtain the real termination and cure of the malady ; whilst by suppuration,

ter may be checked, and yet the former still continue ; because the part which it had violently attacked has been greatly affected by it : for which reason it will be necessary to have recourse to local applications, in order to prevent its progress, and to procure more promptly the recovery. The same precaution must be taken whenever the inflammation, in consequence of numerous circumstances, violently attacks some viscera ; for example, the lungs, attended with severe pain, spitting of blood, &c., a state which obliges us to have recourse to local and general bleeding, at the same time that we administer the remedies proper to subdue the fever.

induration, and mortification, the malady, far from terminating, increases, and acquires a more malignant character.

I am aware that many medical men will confidently say, that they know very well that these terminations are only morbid processes, and that on this very account they recommend an attempt to procure resolution, and in case of impossibility to obtain it, they give the preference to supuration, avoiding as far as they can, induration and mortification. But is there a single physician who can find topical means sufficiently powerful to obtain one termination rather than another, especially when inflammation is effectually supported by irritation in the alimentary canal? Among all remedies called resolvent and digestive, is there a single one which possesses the unfailing virtue of resolving, or suppurating, when applied to the surface of our body? Those who attentively examine this subject will not be deceived by persons who, with a deplorable arrogance, pretend to possess medical art in all its perfection, whereas, on the contrary, they only impose on the public by a verbose and unintelligible cant. The philosophical physician, however, will acknowledge his error, and

confess, that in consequence of the inflammation having been improperly considered as an essential malady, all its stages and secondary effects were also erroneously considered as so many inevitable peculiar maladies.

Inflammation cannot cease if the cause which has produced it is not removed, which latter consists in the deranged circulation. We ought therefore to direct the treatment towards the cause, which occasions the reaction of the heart and vascular system. The blood is the immediate cause, which distends the sanguineous vessels in a preternatural degree ; so that by a decrease of blood we obtain a relief from pain, especially when by copious bleedings we succeed in diminishing the violent distention of the vascular system, which constitutes the immediate cause of it.

If the morbid stimulus which deranges the circulation of the blood is easily removed, the malady will disappear after bleeding ; and this flattering success seems to be exclusively owing to the subtraction of blood. But if we reflect, that in this case the malady would have been cured even without the letting of any blood ; that by bleeding we always do some injury to



the organization, by occasioning a greater waste of substance, already too great from the effect of fever ; that we have no previous sign to know in a positive manner, whether the morbid stimulus in the alimentary canal will be easily removed or not, and that in the latter case we only debilitate the constitution, and make the malady worse ; and, finally, that blood is a precious substance, with which nature achieves the restoration of the functions and organization,—we shall necessarily confess, that it is always extremely imprudent and pernicious to begin the treatment of inflammation by bleeding. And it will be the more so if the inflammation appear with great violence, this being a sign that the constitution is already very liable to be altered. By bleeding in this case, the malady easily becomes fatal ; and not, as is often supposed, from the delay of bleeding\*.

\* The necessity under which, by a kind of social compact, all men in a state of illness consider themselves of yielding to the authoritative decrees of the physician, was not long ago the destruction of a celebrated English genius, Lord Byron. Although this illustrious victim had foreseen how fatal would be the bleeding that was prescribed for him, yet his philosophical and prudent mind did not allow him to oppose the carrying it into effect. By mischance, the delusive relief for a few moments which attended the first bleeding, led on the re-

In inflammation there is constantly a debility in the blood-vessels ; and for this reason it will always be well to prevent the immediate contact of the air with the part affected, in order to protect it from the debilitating action of the cold. The part being covered with a fold of fine warm

peated and increased attacks of the fever, to a second and a third, shortly followed by a profound lethargy, which in a few hours put an end to his mortal career, in the prime of life, to the shame and remorse of those to whom was religiously committed the preservation of his existence.

If the medical attendants had looked with a true practical knowledge to the state of the digestive organs, they would not have lost any precious time in empiric prescriptions and unscientific and dangerous attempts, which bring discredit on the medical art, and prove so fatal to mankind.

Similar catastrophes in a thousand instances plainly condemn the absurd practice of those who either systematically, or regardless of the consequences, prescribe bleeding, sometimes only to satisfy certain capricious and irrational experiments, with the ridiculous presumption of inviting nature to favour the development of the malady ; as if this latter could thus be more easily known, and serve them as a guide in their erroneous prognostications and treatment.

In the above case, bleeding was determined on a day before, and it was deferred only in consequence of an opinion given by one of the physicians in attendance, who, although he had thought it proper, still considered its delay immaterial. But who does not know, that in any case all that concerns the public and private welfare of man admits of no delay ; and less so, when man's life is at stake ? Either bleeding was required, and ought to have been administered immediately ; or

linen, the patient must immediately take purgatives, in the manner already set forth in the chapter on Fever. The action of emetic tartar being very quick, we must always begin with the *tartaric solution*, in the form already shown ; not neglecting to promote perspiration by other stimulating means, perspiration being very bene-

it was only an experiment, and then it was highly reprehensible ; since experiments which may instantly decide a man's life, can scarcely be permitted in the most desperate cases ; and Byron was not then in such a hopeless condition.

From a similar maltreatment, a person of my acquaintance lately died, who in the short space of thirty hours had four copious venesections, for no other complaint than that of a pain in the epigastric region, in consequence of derangement of the digestive organs ; a fact which was acknowledged by the physician himself, who had the uncommon candour to confess that he was mistaken in the diagnosis of the malady, and still more in the treatment of it.

We ought to be extremely cautious in the use of the lancet, which should only be resorted to when the remedies employed to check the inflammation prove ineffectual ; or at the same time with the latter, when the inflammation appears with rapidity and violence in essential viscera, and is attended with severe pain ; or when there is any likelihood of suppuration,—a result which, as far as we can, we must avert.

In acute arthritis, attended with painful swelling of the joints, we may likewise apply leeches around the part affected, in proportion to the violence of the pain. In this manner we shall obtain some advantage in relieving irritation, while by the administering of internal remedies we perfect the radical cure of the malady.



ficial in inflammatory diseases. Warm aromatic infusion of elder-flowers, tea, &c., Dover's Powder, antimonial wine, acetate of ammonia, may be of great benefit in these complaints ; for, as Hunter says, they tend to maintain an universal harmony, by soothing the skin, which relieves all the other sympathizing parts, and prevents the effects of irritation.

If the inflammation is inconsiderable, it will begin to abate within twenty-four hours after the patient has been purged, which will readily be perceived by the decrease of pain and fever. Some mild stimulant may be topically used, in order that the blood-vessels may contract and return to their natural state. Flour of rye, with a fourth part of elder or camomile flowers powdered, applied to the part, will prove an excellent resolvent. Water with a fifth part of vinegar, or a lotion of water and spirit of wine, or the application of a warm cloth dipped in elder-flower water, of a temperature rather higher than that of the part affected, prove also very efficacious, as well as the aspersion of flour of wheat on the part.

If the inflammation is not subdued by repeatedly administering the above-mentioned purga-

tives, we may conclude that the morbid stimulus is difficult to be removed ; and we must be very careful in using them, because they may prove prejudicial, when they only debilitate the constitution. In this case we should apply to the part some topical remedy of a more astringent nature, in order to prevent, as far as we can, the violent distention of the vessels. Camphorated volatile liniment will serve well for this purpose, rubbing it on the part, which must be afterwards covered with cloths dipped in warm decoction of Peruvian or oak bark, as mentioned before. By this method of cure it very seldom happens that the phlegmon, even when very considerable, increases, or proves intractable. I have witnessed phlegmons threatening gangrene, which in a few days were perfectly cured. When the inflammation, after the application of these topics, and notwithstanding the repetition of the purgatives, instead of abating, grows worse, there must be an extreme alteration in the blood-vessels ; and we may be certain that some of these vessels occupying the centre of the diseased part have been lacerated. In this case, the malady assumes that state called by medical men *congestion*, and will be brought to suppu-

ration. When the vessels are violently distended by the impulse of the blood, they tear. The blood then diffuses itself in the neighbouring parts, extends the vessels more and more, accumulates itself by successive effusion, and mixing with a lymphatic and serous transudation, changes its nature, and forms another heterogeneous substance, called *pus*. This, however, rarely happens when purgatives capable of freeing the alimentary canal from the morbid stimulus are employed. Phlegmons, on the other hand, are very seldom cured when treated only by local applications of surgery; for the most boasted resolvents generally prove digestive remedies, as the most powerful digestives may now and then prove resolvents.

We ought not on any account to wish for suppuration in inflammatory diseases, as it is a process of the disease always to be avoided as much as possible; the idea that there may be in the blood some heterogeneous principle producing inflammation, and that suppuration is the way through which it leaves the body being most absurd. When suppuration commences, it will be necessary to mollify the part, that the matter may have a free egress. A poultice of bread



and milk is the best application : but when the suppuration is somewhat extensive, it will be advisable to apply to a surgeon, whose assistance will be no less useful to the patient than that of the physician,—at least until the ulcer following the abscess is brought into a good state.

The patient being treated in the foregoing manner, induration will not appear in those inflammations which affect the common integuments ; and if induration or suppuration frequently occur in glands and viscera, it ought to be ascribed to the improper method of treatment, rather than to their being beyond all local applications, as is commonly thought.

Gangrene occurs when the inflammation proceeds with such violence that the blood-vessels, or a great part of them comprehended in the inflammation, are suddenly brought to so great a degree of distention that they totally lose their organic action, and the part dies, putrefies, and falls into a cadaverous state. In weakly constitutions liable to putrid dissolution, inflammations mostly terminate in gangrene. Those inflammations which occur suddenly, and increase rapidly, threaten to terminate in gangrene and mortification ; in which cases a single bleeding

is sufficient to make the malady very dangerous, intractable, and even mortal. We must immediately give the patient an active purgative, to remove the heterogeneous substances from the alimentary canal, and apply to the part a decoction of camphorated bark, as I have said before; and if the child can take bark inwardly, he must take it freely, in conjunction with a few drops of laudanum, as I have already shown; or the sulphate of quinine repeatedly, in the dose of half a grain each time.

In these cases it is prudent to apply to a surgeon, because he alone can direct the treatment with a true knowledge of causes, this not being the place to point out the various means which may be employed in every peculiar circumstance, and which the skill and prudence of the professional man alone can suggest.

## CHAPTER X.

## FURUNCLE, OR BOIL, AND ITS CURE.

It has already been said that the furuncle, or boil, is an inflammatory process, which obtains a peculiar appellation because the inflammation is circumscribed to a point, attended with rupture of some small vessels of the cellular substance, whose organic alteration acts in that point as an extraneous body, and therefore always terminates in suppuration.

The furuncle has generally the appearance of a circumscribed tubercle, gangrenous in its centre only, very painful, hard, pointed in the middle, very red, but slightly livid on the top, discharging through one or more holes, a bloody matter at first, and afterwards a thick whitish pus, formed of the cellular and adipose substance, constituting what is called by Celsus the *ventricle of the furuncle*.

A local application will generally remove this disease. Emollient plasters of althea or of any of the mucilages, or, what is still better, poultices



of bread and milk, until it opens, are commonly sufficient to bring it to a state of suppuration, and give vent to the matter. When it is sufficiently open, it ought to be gently pressed at the base, in order to get out the cellular nucleus or core, which has the appearance of a piece of sponge impregnated with pus. The ulcer being then treated simply with digestive plaster, it will heal in a few days.

It sometimes happens that the furuncle becomes confluent; that is to say, that either many appear together, or as soon as one is healed, another comes, being only a repeated collecting of humours in consequence of local inflammation successively developed. In this case, in order to stop the multiplication or succession of furuncles, it is necessary to make use of emeto-purgatives or other anthelmintic remedies, as I have already stated; it being well known that the multiplication and reproduction of these cutaneous eruptions can only proceed from the continuance of a morbid stimulus in the intestinal tube.

## CHAPTER XI.

## INFLAMMATION OF THE EYE, OR OPHTHALMIA.

INFLAMMATION of the eye differs from other inflammations only as regards its seat ; but in this malady, besides the symptoms which distinguish it as erysipelatous or phlegmonous, and which constitute either the slight or severe ophthalmia, the eye loses more or less the physical quality which makes it an organ of sense ; so that the disease is also attended with symptoms of a slight or severe alteration of the sight.

The slight ophthalmia may arise from irritation of the eye and weakness of its blood-vessels, occasioned by an exposure to strong light, or to vaporous substances of an irritating nature, by dust, or by an immoderate shedding of tears, by rubbing the eye, or by any other external cause. In this case, a simple lotion of cold water alone, or in combination with a little vinegar, and keeping the patient from whatever cause may have laid the foundation of the malady, will be sufficient to check it in a short time.

It frequently occurs that ophthalmia has for its cause the too free use of vinous and spirituous liquors and indigestible aliments. In this case, an aqueous diet and a gentle purgative will be found very beneficial.

In the severe ophthalmia, we have a positive sign of great disorder in the patient's constitution, and of a predisposition or debility in the eye; and consequently we must infer the prevalence of a violent action of a morbid stimulus in the digestive organs. In this case, any treatment which is not directed with a true knowledge of the cause will prove very prejudicial. This is the reason why inflammations of the eye of this nature, after bleeding and the application of leeches, instead of abating, frequently increase, and rapidly advance, threatening and even bringing on loss of sight in a very short time. I have often had opportunities of observing, that even the severe ophthalmia, like other inflammations, may be cured by the use of the same remedies by means of which we may hope to subdue the action of morbid stimulus in the gastric canal; and that leeches may be usefully applied in the neighbouring regions of the inflammation, only when the heterogeneous



substances affecting the stomach and intestines have been removed. The same internal and general treatment suggested for other inflammations, is also to be adopted in ophthalmia. As regards the local treatment, those remedies which are of a strengthening nature, and at the same time fit to dilute and temper the acrid and viscous matter which irritates the eye and the surrounding parts, will be the best. The eye should be gently washed twice a day with the following collyrium, taking care that it reaches the cornea.

“Take of distilled water four ounces ; of sulphate of zinc (white vitriol) in powder a scruple ; of laudanum thirty drops : the whole well mixed, and strained through paper.”

This collyrium must be applied lukewarm, and the eye protected from the air and light by means of a pledget of fine linen.

When the patient can take the proper purgative anthelmintics, commencing with the emetic tartar, as I have stated before, the malady will soon abate ; although now and then, on account either of the carelessness of the patient, or the inefficacy of the medicines, the inflammation may run high, and the pain will extend not only to

the eye-ball, but even further. In the latter case, it will be necessary to apply some emollient and lukewarm fomentations, in order to allay the irritation occasioned by the violent distention of the parts ; such as linen rags dipped in warm whey, or in marsh-mallow water ; or, if the patient can endure them, poultices made either of roasted apples, or of bread and milk, &c. A blister applied to the nape of the neck may also prove beneficial ; not because, as was formerly believed, vicious humours are carried off ; but because it occasions a topical sensation stronger than that of the morbid stimulus which acts upon the part affected, diminishing thereby the influence of the latter ; and because by operating as a diffusive stimulant, it increases the action of the whole muscular system ; and the sanguineous vessels, in consequence of the general corrugation of their carnosus fibres, regain the elasticity which they had lost, so that the malady is palliated ; or, on the supposition that such can be the case, we may say, because it removes the humours to a considerable distance from the seat of the inflammation.

Under any other circumstances, it is advisable to abstain from applying lotions of any kind,

because they generally do more harm than good. Now and then the application of leeches proves useful, in allaying for some time the violence of the pain ; but the relief procured by it is of so short a duration, and the injury so considerable, that the patient pays too dearly for a few moments' alleviation. In these cases, instead of doing too much, it is better to recommend calmness and patience to the sufferer, administering at the same time some sedative potion proper to afford a durable cessation of pain,—as the following.

“1st. Take of distilled water of orange-flowers two ounces ; of syrup *totius citri*\* half an ounce ; of laudanum half a scruple. A tablespoonfull to be taken every quarter of an hour, until the patient feels relieved.

“2nd. Take of distilled water two ounces ; common syrup half an ounce ; aqueous extract of opium† two grains. To be taken as above.”

\* Let six ounces of fresh rind of citron cut fine be put into a glazed earthen pot ; add two pounds of common syrup boiling ; keep it well closed for twenty-four hours, and then strain it. We obtain by the same process the syrups of orange peel, lemon, &c.

† The aqueous extract of opium acts more as a sedative



The following emulsion is also very efficacious.

“ Make an emulsion of melon-seed and distilled water. Take of it six ounces, and dissolve in it a scruple of gum arabic ; strain ; then add an ounce and a half of common syrup, and two grains of aqueous extract of opium. Give four, six, or even eight tablespoonfulls an hour, according to the age of the patient.”

Sometimes the inflammation of the eye affects the inward part of the eye-lids more than the eye-ball, and the matter discharged is so acrid that it corrodes the neighbouring parts where it rests, and even the nose. The upper lip next the nostrils becomes excoriated, and covered with such an incrustation as to stop the passage to the nose. The malady has the appearance of a herpes, or breaking-out, and it is generally ascribed to an acrid principle in the blood ; an opinion which is

than a narcotic, and for this reason it ought to be preferred to any other preparation of opium, when we prescribe this latter with the sole view of procuring some rest to the patient. Externally applied in the form of a poultice, by softening it with saliva, and spreading it on a piece of linen, it is good for curing the bite of poisonous insects, such as that of bees, wasps, and hornets ; and is considered a sure remedy for scalds produced by sulphuric acid.

destitute of foundation, for all supposed acrimonies of the blood are merely delusive and chimerical appearances.

This state announces the predominant cause to be a derangement of the alimentary canal, often arising from worms ; which, when they resist the action of evacuants, it is adviseable to discontinue the use of ; and so much the more, because vermination is sometimes so difficult to subdue, that no remedy can effectually remove it ; and in this case, to persist in administering purgatives would be only to ruin the patient. It will be prudent in such circumstances to adopt a treatment gently anthelmintic, and at the same time strengthening.

“Take of Ethiops mineral (black sulphate of antimony) half an ounce ; aniseed and cinnamon, or nutmeg, in powder, of each a scruple and a half ; an ounce of lump-sugar in powder : mix the whole, and divide into twelve parts.”

One of these powders may be taken every morning, dry as it is, being very palatable ; and they will undoubtedly suit the cases above mentioned, since patients by taking them have gradually and insensibly recovered.

Children require more nourishment than adults ; and if their appetite be good, they ought to be allowed the food they relish, provided it be digestible and nutritious, and they do not take it in too great quantity. If they are accustomed to wine, they may have some with a little water ; but if they do not wish for it, pure water will be preferable. With the treatment above prescribed, the inflammation of the eye will very seldom have a bad termination.

These inflammations are the most frequent among children ; and the foregoing method may be successfully applied to all others, namely, chilblains, whitlows, mumps, as well as all internal inflammations, as angina pectoris, peripneumony, pleurisy, &c., which it would be useless to enumerate, as they possess no essential differences.

Nevertheless, I think it necessary to give here a general idea of another inflammation of the eye, to which new-born children are frequently subject, and which is distinguished from all others by its appearing with great violence, extraordinary swelling of the eye-lids and conjunctiva, soon after followed by a copious discharge of an apparently corrupt and puriform substance ;



an inflammation which likewise attacks adults in a violent manner, in consequence of siphilitic distempers, and not of the retrocession of gonorrhœal matter, as is in general erroneously imagined by physicians\*.

This ophthalmia, called *puriformis*, appears either immediately on, or a few weeks after the birth. The eye-lids swell so much that they cannot be separated from each other, much less be turned out. In the commencement, the fever runs high, the child cries continually,

\* Under these circumstances, this terrible malady proceeds from its very beginning, not from retrocession of any venereal discharge, but from the immediate application of the purulent matter to the conjunctiva, a very sensitive pellicle which lines the edges and inward parts of the eyelids. This frequently arises from rubbing the eyes inadvertently, either with linen or with the fingers stained with the above-mentioned acrid glutinous matter, the stimulus of which being then communicated to all the circumference of the eye, increases and alters the secretion of the meibonian glands, exciting in them violent inflammation, ordinarily followed by the derangement of this organ and the loss of sight, owing to the false idea entertained of the cause of the malady.

If this species of ophthalmia makes its appearance in subjects affected with siphilis, or other venereal diseases, it will differ from any other ophthalmia only with respect to the peculiar state of the patient, which renders it more severe and complicated, requiring a treatment more prompt and energetic, and at the same time fitted to subdue the principal malady.

finds no rest, and is affected with incessant shaking of all his body, which symptoms are frequently associated with vomiting, and a diarrhoea of yellow and fetid matter. The first stage of the malady, which is short, being over, the eyes continually discharge a great quantity of purulent mucus, which, if speedy assistance is not afforded, will soon swell the cornea, deprive it of its transparency, and occasion the total loss of sight (*staphiloma*).

Much difference of opinion still exists among medical practitioners with respect to the cause of this inflammation. The celebrated Professor Scarpa, who has given so correct a description of this malady, proposes a treatment which seems to agree with the principles adopted in this treatise, although he indulges, like others, in the chaos of secondary causes, which are considered by the generality of medical writers as the immediate and primitive cause of this severe inflammation.

Among the remedies which this learned practitioner proposes to be administered internally, and which ought to precede the local applications, he recommends the emetic tartar in the manner that I have repeatedly stated, or

purging the child with anthelmintics, or even with simple syrup of succory, with rhubarb in conjunction with a little magnesia, advising the nurse at the same time not to overload the stomach of the child either with milk or any other food.

If there be any suspicion of the malady proceeding from deficiency of milk, the nurse must be changed, or the quality of her milk corrected by the use of the remedies which I have already mentioned in the chapter on Indigestion.

The local means must be the same as in the inflammatory ophthalmia, and others, as the prudence of a surgeon may deem proper; for in this case parents should apply to experienced medical men.

Among the instructions to be given to nurses, it ought to be particularly recommended, that as soon as the child is born, all his body, face, and above all his eye-lids and eye-lashes, should be washed with tepid wine and water, and the inside of the eye-lids with lukewarm marsh-mallow-water, which washing must be continued daily, for some time. Besides, particular care ought to be taken not to expose it either to cold



and damp air, or to a blazing fire ; in a word, his tender eyes should always be defended against a very strong light, so that the child may be protected from the action of those causes which predispose to this malady.

## CHAPTER XII.

## SCROFULA (KING'S EVIL), AND OBSTRUCTIONS.

FOR want of precise ideas, a multitude of humours, which have been commonly believed to contaminate the whole mass of the blood, have been considered as the causes of disease; whilst the effects of the altered animal œconomy met with in the dissection of subjects, and which have occasioned death, have been considered as the primitive causes of the maladies. These errors are so discernible, that the slightest examination would have easily brought them to light. But respect for the authority of those eminent men, who firmly believed that they had found the seat and cause of maladies by means of dissecting, has always been an exception to the principles adopted by wise physicians.

All the parts of the human body are maintained in vigour by the vascular system. In every point, therefore, the blood-vessels may be brought to some degree of preternatural distention, whenever the impulse effected by the action

of the blood exceeds their resisting power : but this preternatural distention of the blood-vessels is not effected every where in the same manner. In parts of firm texture it is done with great violence, in others less firm it is performed with more ease. The pain, which is always in proportion to the resistance of the blood-vessels, is a constant index of the degree of violence of the inflammation, except when the patient's constitution, or the part in which the inflammation arises, is very susceptible of alteration.

In those parts which are slightly furnished with muscular fibres, wherein the vascular system is united only by a light cellular substance, such as the greater part of the glands, the inflammation generally comes on very slowly, and consequently is very seldom attended with great pain. When the glands of the neck become inflamed, this part appears much tumefied, with little or no pain. These protuberances below the ears are called the *parotid* glands ; and when the malady proceeds almost insensibly, and is neglected or only treated with external remedies, (which is nearly the same thing,) the part affected terminates in suppuration. The ulcers which attend this stage of the malady constitute what are



called scrofulous tumours. If, in consequence of an improper treatment, the disorder does not subside in the commencement, it will prove the more obstinate the greater the organic alteration may be; and it is therefore imagined that this morbid affection has for its cause a principle *sui generis*, which is called *scrofulous*. When this slow inflammation affects the liver, the spleen, the mesenteric glands, and other glands of the abdomen, all the animal œconomy will gradually decline, especially on account of the alteration of the digestive functions, and put an end to the patient's sufferings. The blood-vessels by their excessive distention partially lose their proper elasticity, and they lose it entirely before the total extinction of the circulation takes place, so that after death they are as replete as if they were injected. This circumstance has induced a belief that such diseases proceed from a local interruption of the circulation of the blood, or from its stagnation,—so that the cause of this malady has been ascribed to the stagnation of the blood, and the malady itself thence called *obstruction*. In the modern theories of the Solidists, the existence of several humours is abolished, but the scrofulous is still in fashion; and obstruc-

tions are still in great repute under the name of *fisconia*.

Numerous facts clearly show the absurdity of these opinions : but the few I intend to produce will be sufficient to certify that these maladies are for the most part symptoms of the noxious influence of worms, which treated from the beginning in the manner above stated, will shortly subside. The accurate examination of the lower region of the belly, for the purpose of ascertaining the existence, or otherwise, of obstructions, so called, would be altogether useless, if it were not an object also to ascertain the further progress of the disease, whilst these pretended particular affections are but greater morbid effects of the pre-existence of one and the same cause, requiring the same method of cure.

As obstructions are merely imaginary diseases, so are the remedies called *deobstruent*. Since I have practised medicine I have met with no difficulty in removing the diseases called scrofula and obstructions, at least when the malady had not been carried so far as to occasion some considerable injury to the organization, especially in the articulations, or to affect the inmost tissue of essential viscera.

It ought not to be thought, however, that worms exist in children only. They affect persons of every age; and among many examples that I shall produce, the following deserve more particular attention.

A lady thirty-seven years old, residing at Barcelonetta (Catalonia), was subject to a distressing pain in the left hypochondre, with a remarkable swelling of the spleen, which in some degree subsided by the use of purgatives, and copious subtractions of blood by means of leeches applied to the part affected. While in child-bed a second time, she was severely attacked by the same pain, which was followed by a violent fever; and notwithstanding all means employed to check the malady, she died. During her agony, an immense quantity of worms appeared on a sudden at her mouth, so as to make all the bystanders imagine that she was suffocated by them. Although in the course of her malady she showed no symptoms from which the existence of worms might have been inferred, still we are led not only to believe that she was suffocated by them, but we entertain not the least doubt of their having been the cause of her malady.

A lady, seventy years of age, had a tumour



on her neck, which terminated in suppuration. The abscess having burst, it degenerated into a scrofulous ulcer, which proved obstinate to every kind of treatment. Many other humours appeared in the vicinity of this ulcer, which likewise burst and degenerated into scrofulous ulcers as obstinate as the former; and their number augmented so much, that they extended from one shoulder to the other. The surgeon who attended her deemed them incurable; but the lady being advised to submit herself to an internal anthelmintic treatment, determined to take the following powder, though she would scarcely believe that at her age she could be troubled by worms.

“Wormseed (*Artemisia Judaica*, Linn.), jalap root in powder, lump sugar in powder; of each a scruple and a half, dissolved in some water.”

The very day she took this medicine she evacuated more than thirty large worms (*lumbrici*). After that time the sores lost by degrees their unhealthy appearance; and in less than six weeks, by a simple application of digestive ointment, she perfectly recovered.

A young lady, twenty-two years of age, was

so severely attacked by what is called the scrofulous disease, that all her body was covered with ulcers; the articulation of her left elbow and both her knees had ulcerous swellings; and such was the severity of her disorder, that she could not stand, presenting a most disgusting appearance. All remedies prompted by medical art for the treatment of scrofula were administered, to no purpose. Afterwards the Iodine under its different forms was applied both internally and locally; but instead of mending, she grew worse. Mineral waters of every description were also tried, with no better success. At last her debility being extreme, and her state quite hopeless, she refused to observe any regular dietetic regimen, so that severe pains in the bowels attended with extreme weakness ensued. The only remedies which could be used were some emollient clysters, by means of which, after four days of great suffering she had a copious evacuation of fæces mixed with a few worms. This latter circumstance completely convinced the patient that these animals were the cause of her malady; and she immediately took the purgative anthelmintics above described. The quantity of worms which she evacuated was immense;

so that in five months, after a strengthening treatment, viz. of bark in decoction and in substance, she completely recovered.

These examples evidently show that the scrofulous diathesis is entirely illusory, and that it is only a peculiar effect proceeding from the general cause of inflammatory diseases, without excepting the *tricoma* or *Plica Polonica*, a distemper which, from its being common as *scrofula* among Polish Jews, may be considered as having a great affinity to this malady, and consequently as proceeding from the same cause\* ; and that, if scrofula proves obstinate against all remedies which medical art has employed in the treatment of it, it is because no one of them is employed with a true knowledge of the cause, and consequently not directed to remove it, being to this day erroneously considered as intractable and incurable †.

\* *Plica Polonica* is a severe distemper of the hair, which becomes considerably swollen with blood, from the extremities and lateral morbid fissures of which it flows copiously, and even terminates fatally if we attempt to cut the hair, when, by reason of a viscous transudation, it divides into large locks, forming inextricable plaitings, so as to appear as if thickened to a considerable volume.

† Would able physicians but seriously consider that by wandering in fantastic researches regarding the sanatory art,



To show the great influence of worms in the commencement, exacerbation, and pertinacity of diseases, we have only to consider that, by merely administering mercurial and various other anthelmintic evacuants, we succeed in checking even those affections of the nose and breast, which are supposed to proceed from a peculiar cachectic defect, either scrofulous, or herpetic, or cancerous ; such as *ozæna*, *polypus*, *offensive breath*, *hemophthisis*, &c. ; maladies of the head, as *cephalalgia*, *giddiness*, *epilepsy*, and other extraordinary nervous affections ;—phænomena which, in daily practice, exclude all doubt concerning the powerful influence of worms. It is not rare to meet with strangulated hernia proceeding from the immediate action of these animals\*.

I am far from supposing, however, that the influence of worms prevails in every disease ;

they commit not only an error, but an injury, they certainly would better employ their talents and judgement for the attainment of their object ; and by so doing they would soon find the real source of most maladies which afflict mankind, and bring to a happy termination much more easily those who are committed to their care.

\* See Wohlfort, *De vermibus per nares excretis* ; and Richter's Elements of Surgery, vol. v. chapter on Hernia.

but as their existence is very frequently observed in maladies, I hesitate not to affirm, that whenever there is a necessity for cleansing the intestinal canal, the employment of anthelmintics instead of simple evacuants is generally to be preferred.

## CHAPTER XIII.

APHTHÆ (ULCERS IN THE MOUTH), AND RINGWORM  
UPON THE SCALP.

A DERANGEMENT of the circulation of the blood may occasion a derangement of the organization in various ways, of which inflammation is always the first degree. Sometimes the violent distention of the blood-vessels takes place only in the sebaceous glands; and is effected with such rapidity, that the alteration cannot be perceived until the parts, wherein the vessels have been overpowered by the impulse of the blood, are already disorganized. Some small pustules appear upon the tongue, palate, and common integuments of the interior of the mouth, which soon burst, and constitute that derangement of the organization called aphthæ, or ulcers in the mouth. They are very painful, appear red at the edge and white in the middle, from the deposition of coagulable lymph copiously transuding from the small vessels which have been ruptured.



No sooner is it perceived that a child has any difficulty either in sucking or in chewing his food, has his mouth filled with saliva, and complains or cries, than the inside of the mouth ought to be carefully examined, when it will most probably be found ulcerated in some parts. The ulcers in this case are symptoms of the presence of verminous and viscous or degenerated substances in the alimentary canal; and therefore a few spoonfulls of the tartar solution above mentioned should be administered. This will generally suffice; and it will be easily ascertained the day after, whether the child has been sufficiently purged, by touching the ulcers rather roughly with spirit of vitriol, so as to make them discharge blood. If he does not complain, it is a proof that he has been sufficiently purged. If, on the contrary, the ulcers enlarge, it is a sign that he has not; and then it will be proper to give him from one to three grains of resin of jalap, according to his age, with the same quantity of calomel in combination with syrup; if from two years of age upwards, half a scruple of wormseed (*Artemisia Judaica*), and the same quantity of jalap root and sugar;—the whole dissolved in water. If the ulcers assume an un-

healthy colour, it will be adviseable to touch them with decoction of bark, with the addition of sulphuric acid diluted, as I have already shown ; or, in order to check their progress, lightly with a pencil dipped in a solution of *sal ammoniac*, with a little lemon juice or vinegar, or camphorated spirit of wine ; or to let him use the mixture as a gargle, if he can. But the use of evacuants must always be preferred to topical applications ; for, as is observed by Richter, an eminent practitioner, these maladies generally prove fatal to children, when the internal remedies are administered too late by reason of their cause being entirely mistaken, and generally considered to be the influence of unwholesome and corrupted air.

A similar organic alteration shows itself more observably upon the heads of children. A swelling of the glands of the neck, elevating the skin in protuberances of the size of hazelnuts, announces the malady ; which commences with scabs of a yellowish hue, collected here and there under the hair, and attended with a very troublesome itching ; so that children by scratching, do themselves more injury than the disease of itself would do.

Sometimes this derangement of the organization makes its appearance on the face ; and children are disfigured by an immense quantity of scabs formed by the transudation of a substance generated by the alteration of the skin. This malady has been also considered by practitioners as arising from a peculiar defect of the humours ; while, on the contrary, the humours which issue from the skin, being exsiccated form the scabs, and affect the neighbouring parts on which they fall, are but an accidental morbid modification, a peculiar effect of the organization itself, and consequently merely local.

The proximate cause of this malady is the same as that of all others, the derangement of the circulation ; which is produced either by worms or other vitiated substances contained in the stomach and intestines. As long as this morbid stimulus is active, the malady increases, and the alteration of the circulation of the blood becomes more and more violent. It may appear under many different and successive forms, which seem to constitute as many distinct diseases, but which, as I have repeatedly said, really are mere effects of one and the same cause.

These ulcerations and scabs are mostly cured



by simply applying topical exsiccants, by means of which the organization is rendered less liable to be altered, and the sores heal. If this occur before the internal morbid stimulus be removed, and this latter originate new maladies, they will be ascribed to the retrocession of the morbid humours ; and thus a delusive appearance will give currency to futile conjecture.

Worms and corrupted substances in the gastric and intestinal organs do not always prove obstinate to the medicative power of nature ; for if there are numerous causes which may render them detrimentally active, there are also many which may destroy their noxious influence. Numberless maladies which during many centuries have been cured, before the preservation and restoration of health had become an exclusive profession, and the recoveries which frequently occur, notwithstanding the pernicious influence of improper remedies, are irrefragable proofs of the immense power of nature ; and this is the real reason why the malady which I am describing, and others, are frequently cured by the sole employment of topical applications empirically administered.

It is very difficult to induce children to take

medicines inwardly ; and therefore we must oftentimes have recourse to topical applications for effecting a complete cure. In both cases, an oleaginous substance rather exsiccant, will answer the purpose admirably, as far as regards the local disease. Oil easily combines with the sebaceous substance secreted from the ulceration of the skin, which in this case seems to affect the sebaceous glands only ; it dilutes this excrementitious substance, and prevents it from drying ; it obviates its corrosive nature, and consequently puts a stop to further mischief. If rendered somewhat exsiccant or astringent, it invigorates the part, and makes it less liable to alteration. It is therefore good for preventing successive alterations, and for promoting a cure.

Many are the unctuous and astringent substances that may be applied with advantage ; but *oil of walnuts* and *linseed oil*, in which eels or tench have been fried, are to be preferred to all others. The scabs must be gently rubbed with a fine sponge or linen dipped in this ointment twice a day, after having the hair cut off. As children cannot be combed when they have this disease, they are liable to be infested with vermin ; but these may easily be exterminated by

mixing with an ounce of this oil two grains of *red precipitate of mercury*, or two scruples of *sabadilia* in powder. Some prefer in this case the *oil of earthworms* mixed with *sabadilia*, which is also found to be efficacious.

If the disease does not subside by the foregoing means, any other topical application will be useless; and in this case it is absolutely necessary to purge the child in the manner above mentioned for other maladies. A few grains of resin of jalap and calomel combined, always proved sufficient to cure this disease in numerous children placed under my care.

The *Jacea* (*Viola tricolor*, Linn.) has been recommended as a specific for scaldhead and ringworm: but I must at the same time observe, that I have used it several times without finding it more beneficial than other remedies. The decoction of this plant with milk, as it is commonly used, gives a very offensive smell to the urine: whenever, therefore, the patients have recovered, it has been concluded that this substance had caused an evacuation of the morbid matter through the urinary secretions. Whereas, whoever uses this decoction, let him be ill or well, will perceive its smell in his urine. The same



thing occurs after eating asparagus, for which reason we think it diuretic : but *Jacea* is no more a specific against scaldhead, than asparagus is diuretic ; for the removal of scaldhead and an increase of urine are effects of no medicament, but only of the laws of our organization ; medicaments acting only as corrective of the causes and effects of diseases : and the cases that have been adduced of cure by the use of *Jacea*, should be ascribed rather to the power of nature than to the efficacy of that herb, as being a result which often takes place without any medicine at all.

The *tartaric acid* is also considered an efficacious remedy for scaldhead, far superior to any other ; but this I have always found useless. The medicine ought to be administered to the nurse, in order to prevent the child from experiencing sickness, tormina, and diarrhœa. It is prescribed according to the following formula :

“Tartaric acid one ounce ; sugar two ounces ;  
decoction of cow-grass (*Triticum repens*,  
Linn.) one pound.”

This dose must be taken several times a day, and continued for several days after the scabs have disappeared.

## CHAPTER XIV.

## ITCH, HERPES, AND SCURF.

THESE three maladies must be considered under two points of view ; that is to say, as simple effects of contagion, or successive effects of worms or other heterogeneous substances in the digestive organs. They may be considered as contagious maladies, and as simple effects of contagion, only when they appear after the immediate communication of virulent matter.

According to the observations of very able practitioners, these maladies arise from small insects\*, which penetrating through the inorganic

\* A question has been raised by some otherwise very learned observers, whether these pretended insects are the cause of these diseases, or themselves the consequences of filth applied to the skin, particularly in itch and scurf ; and they seem more inclined to consider them as effects than as causes. But if we observe how free from these complaints are gold-finders, grooms, brewers, &c., who are, we may say, plunged in filth, we shall have strong reason for believing that itch is indeed originated from those animalculæ which have been observed by Cestoni, Redi, Linnaeus, Pringle, Murray, Rosenstein, Wideman, Morgagni, and Buzzi ;—an opinion strengthened by a remarkable circumstance which

pores of the cuticle, settle in the *corpus mucosum* of Malpighi, a very thin and soft membrane, which joins the cuticle to the skin. They are so small as to be imperceptible to the naked eye. In those parts where they settle and multiply, they separate by their motion the cuticle from the skin, which rises in small pellucid vesicles attended with intolerable itching ; so that children scratching them with their nails, they become lacerated, and converted into as many small sores.

Itch chiefly appears in those parts where the cuticle is thin ; such as between the fingers and the toes, in the internal part of the forearm, the breast and the hams, and afterwards in every part of the body, the face excepted. It may be known by its transparent globules of different sizes, attended with itching which increases with the warmth of bed and fire.

This malady is distinguished by practitioners

has been often observed, namely, that some of the pustules constituting the itch have no insect, but only a reddish track left by the insect in its way from one pustule to another, in the last of which it seems to have fixed its residence ; on which account it has been thought to insinuate itself under the epidermis, and raise pustules in several places, but to settle only in one, where it probably lays its eggs.



into different species, according to the form of the pustules and the degree of their ulceration which constitutes it. But this distinction being of no importance in regard to the treatment, I think it unnecessary to explain it here.

*Herpes* shows itself in every part of the body, the palm of the hand and the sole of the foot generally excepted. It commonly makes its appearance with a remarkable elevation and hardness of the skin, the cuticle becoming very rough and divided into small scales, exhibiting heaps of very small and irregular tubercles, sometimes round, sometimes of an irregular shape, reddish, and always attended with a troublesome itching, so as to make one feel an inexpressible relief by rubbing them.

*Scurf* occupies the hairy scalp only, and appears under the form of herpes, when it simply proceeds from the presence of those insects which occasion it. In this case it ought to be considered as a herpes, since it differs from this malady merely on account of its seat; and assumes the appellation of *scurf* only when it attacks the scalp, and children of weakly constitution, in whom the alteration of the skin appears with some violence. The cure in this case proves

more or less difficult, according to the efficacy of the local remedies employed.

When these maladies proceed only from these microscopic insects, they are benign, merely local, and will be easily cured by remedies containing sulphur or mercury. There is scarcely an apothecary who does not possess some good preparation, under the form of liniment or ointment, for these maladies; the best of which is the *aluminous water of Fallopius*, and the *antipsoric water*, which is made by boiling one pound of dry tobacco-leaves in five pints of common water, adding two ounces of subcarbonate of soda. These preparations are preferable to any other lotions in these diseases, as by using them the disagreeable odour of the sulphur, which generally enters into other medicines and soils the linen, is avoided. By using this lotion I have always succeeded in removing these cutaneous complaints in less than a week.

But the same morbid modifications, when once produced by means of these microscopic animals (as they are called), are aggravated and prolonged by worms and other heterogeneous substances constituting the morbid stimulus of the alimentary canal. In this case, itch and herpes become

so malignant and obstinate against every topical application, that oftentimes the remedies only serve to irritate, and to injure the common integuments in a dreadful manner. The leprosy of the ancients is probably the itch or the herpes of this malignant character; and the internal vermination has perhaps some relation with the family of these animalculæ, whenever the disease proceeds from them.

Scurf in this case exists as a peculiar malady affecting the root of the hair, which falls off, leaving here and there unsightly places upon the scalp. It is easy to perceive when the itch proceeds from worms in the alimentary canal, since in this case the hair falls off by the least pull, its bulb being corroded, and of a fetid and nauseous smell. When the complaint is attended with these symptoms, it is commonly said that all the blood is infected. The successive alterations which the morbid stimulus may occasion to the organization, in proportion as it renders the patient's constitution more liable to disorder, are usually ascribed to the infection of the blood, or to the retrocession of the itchy, herpetic, and scurfy humours. The wretched patient is then tormented with blisters, setons, mustard poul-



tices, &c. ; and if he should get well, they will sometimes carry their inhumanity so far as to bring on the malady again. Some cases in which, for the reasons above stated, health has been casually restored notwithstanding the bad treatment, will serve only to confirm even able physicians in the most absurd opinions.

In these cases the chief regard must be had to the verminous stimulus; not for fear lest by using astringents topically the mischief may be driven inwards\*, but because they are for the most part useless; and if in the interim the malady should assume a more violent character, it will be the same as though it had been neglected, if not worse†.

Those physicians who have had opportunities

\* The bad results which sometimes follow,—as deafness, and other affections of the brain and eyes,—ought not to be attributed to the retrocession of these cutaneous eruptions, but rather to the improper use of external remedies, and to nothing else.

† The like may take place whenever, in consequence of accidental morbid modifications, a schirrous or cancerous affection (as it is supposed to be) attacks any part of our body. If after extirpation the schirrus or cancer reappears with greater violence than before, and causes death, as it most frequently does, it is ascribed by surgeons to the insuperable virulence of the distemper; as if, being prevented from extending itself in the part where it first appeared, it must

of treating itchy patients in military hospitals, and who are not governed by a spirit of opposition, but by purely philosophical feelings, will undoubtedly agree, that whenever this malady has proved obstinate, it can hardly be cured by external remedies ; and if sometimes this happens, it is certainly because by repeated external applications of medicinal substances the vermination may have been checked, on account of these medicaments being absorbed by the inhaling pores of the skin, and of their being consequently carried into the alimentary canal, where the thickest excrementitious substances are deposited. Mercury itself when administered by friction becomes beneficial only by carrying its anthelmintic power into the gastric organs.

necessarily invade some other with such intensity as to occasion death. But this morbid affection and dreadful aggregation of symptoms are only relative to the cause which generates so painful and terrible a malady, which still exerts all its pernicious influence, though not by reason of the pre-existence of schirro-cancerous cachexies, an error which has constantly prevented practitioners from investigating the true causes of the obstinate character of this malady, cachexies being at the most mere effects. This may be considered the reason why all the means which have been tried for assuaging the numerous and complicated evils which torment those who are affected with this dreadful disorder, have proved inefficacious.

Perhaps it may be objected, that in many disorders, even with an anthelmintic treatment, no worms are evacuated so as to give us any reason for considering them as the cause. Their appearance is unnecessary in order to show the fact; and it suffices to observe, that very often it is only by administering anthelmintic evacuants that we can remove the most obstinate diseases. Nor does it avail to say, that the anatomic inspection does not discover any worms. Let the intestinal canal be accurately examined, and the cases of no worms in this organ will be rare.

I have lately cured a boy eleven years old, who might be already considered as leprous; his scalp being not only covered with scabs and incrustations of scurf, but all his body, his cheeks, forehead, and eye-brows,—having the most disgusting appearance. All the remedies administered to him during two years had proved quite inefficacious; but at last, being subjected to an anthelmintic treatment, he recovered in about forty days, without having evacuated any worms. But it is not less true for all this, that the malady gave way only to a mixed treatment entirely directed to the removal of heterogeneous substances in the alimentary canal, and the extermi-



nation of the verminous fomes. The external remedies which I prescribed at the same time could only act as auxiliary in removing the injury of the skin occasioned by the corrupted matter. The only means externally employed were baths impregnated with sulphur and chalk continued for several days, and an ointment applied twice a day on the incrustations and scabs, composed—of white wax three ounces; lard and butter, of each nine ounces, liquefied at a low fire; then mixing half an ounce of red precipitate of mercury, and one ounce of common salt, and the same quantity of corrosive sublimate, and the juice of half a lemon: the whole mixed together.

In regard to the generality of internal remedies proper for the disorders which form the subject of this chapter,—besides the foregoing anthelmintics, there should be continually administered some vermifuge medicines, neither debilitating nor nauseous. A remedy which may be continued for several months without the least inconvenience, is the *ethiops mineral* in combination with aniseed, cinnamon, and sugar, as I have recommended in the chapter upon Inflammation of the Eye, to be taken in the same man-

ner ; viz. by swallowing one of the dry powders every morning. The patient now and then must bathe, in order to wash off the filth from his body.

When the scurf proves obstinate and severe, it requires, besides the foregoing treatment, that the hair should be eradicated ; an operation which must be performed by the hand of a skilful surgeon.

With regard to the diet, it should be wholesome, nutritious, and digestible for children ; who may be allowed to eat at their pleasure, provided they do not overload their stomachs.

Other necessary precautions not to be left unnoticed are cleanliness of linen and clothes, and attention in keeping the patient from contact with other children, that he may not communicate the complaint to them.

## CHAPTER XV.

## RICKETS, AND ITS CURE.

RICKETS is a disease of children in which the bones lose their firmness, bend, and become distorted. The patient is all the while extremely weak, and every effort he makes tends only to deform his body more and more.

The accidental modifications under which this malady appears, are very numerous ; and so likewise are the conjectures by which it has been explained. All that has been said by medical authors relating to it serves only to perplex the mind, and to show that it has never been understood ; it would therefore be useless to relate all these incongruities, merely in order to refute them. Suffice it to say, that if all the other maladies which are successive effects of the deranged circulation of the blood may sometimes proceed from heterogeneous substances existing in the alimentary canal, this is generally an exclusive effect of worms, by whose action all the animal œconomy becomes morbidly affected.



How worms can act upon the whole organization, and render it relaxed in all its extent, will perhaps never be explained. But however useful such an explanation might be, still it would never be of such importance as the conviction that this malady is very frequently an exclusive effect of the cause just mentioned, and of unwholesome nutriment.

Natural and chemical philosophers explain in various manners the phænomenon of combustion : but even without any knowledge of the nature of fire, and of its action upon combustible bodies, all the world would still make use of this element. Every one knows that its action is noxious when in contact with the animal organization, and that by avoiding such contact he avoids its pernicious effects.

All the observations published by the most celebrated physicians on the malady under consideration, will easily show that the different causes to which they ascribe it are debilitating, or in other words, tending to make the constitution very susceptible of derangement ; and that all have an idea of worms in this respect, although they seem to consider them as a mere accidental combination of circumstances.

A large head, and other remarkable effects which appear at the nose, upper lip, and mouth, and the general flaccidity of the flesh, as well as the distortion of the bones, indicate that the malady is already in an advanced stage. A great debility of the lower limbs constitutes the first symptoms of this disease ; so that the child cannot stand upon his feet, which become unable to support the weight of the body. Mothers and nurses believe in this case, that the child cannot stand upon his legs for want of exercise, and endeavour to make him stand ; but in this forced attempt they do him great injury, by weakening him more and more, and rendering the bones of his legs still more flexible. As soon as they perceive that the child's legs become soft, they ought not to oblige him to stand or make efforts to do so ; for so far from giving them strength, this practice will promote the incurvation of his ribs, spine, and other bones.

The treatment ought to be directed to remove from the alimentary canal the heterogeneous substances, especially worms, and to invigorate the constitution chiefly by means of digestible and nutritious aliments ; for otherwise nothing can be expected from all the remedies considered

as specifics for this malady. The prescriptions which I have already pointed out for the removal of the cause of other diseases, must be first administered, as being proper at the same time to relieve the digestive functions, which being impaired, the best milk and the most eligible food would become detrimental, instead of benefiting the patient. The sulphate and carbonate of iron, the sulphate of quinine, and the alkaline solution, may be also administered inwardly with success.

A celebrated practitioner, who has given some particular ideas on the nature and cure of rickets, is inclined to admit an excess of a certain acid in all the softened bones, and a deficiency of phosphoric acid, which combined with calcareous animal substance constitutes the firmness of the bones. We may therefore administer inwardly the phosphate of chalk alone, or in combination with the phosphate of soda, in the dose of a scruple or half a drachm of each twice a day (having previously prescribed proper anthelmintic purgatives); washing at the same time the diseased limbs with a solution composed of half an ounce of potash in a pint of water; rubbing them before, and wiping them after with a cloth or flannel.



The less advanced the malady is, the easier of course will be the cure. The employment of the foregoing remedies must therefore be resorted to as soon as the first symptoms appear. Cold baths in summer have always been found very beneficial : while the anthelmintic evacuants are given inwardly, the child ought to be externally washed with an aromatic decoction, or with wine. Crushed grapes, if possible when in a state of fermentation and warm, should be applied to the parts affected ; which may also be rubbed with spirit of wine, or with a liniment composed of laurel oil an ounce, ox-gall half an ounce, camphorated spirit of wine a drachm. All these applications must be lukewarm, and gently applied with a sponge.

If the bones of the legs are already bent, the child must be cautiously tied with bandages, and small cushions placed on the curvatures of the bones, so as to reduce them as much as possible to their natural shape. It is, however, generally agreed, that it is far better to leave the limbs entirely at liberty, by placing the child upon a hard and even bed, light enough to be easily carried into the fresh and dry air at convenient times,

in order to supply the want of exercise so much required in these circumstances.

A young lady seventeen years of age, lively and of a sound constitution, was all at once seized with an extreme melancholy loss of appetite, and unwillingness to every sort of exercise, so as to be already considered in a state of mental derangement. Seven months had elapsed since this unaccountable alteration, which no medical means whatever could remove, when she complained of a shooting pain at her right shoulder, under the blade, which by degrees extended to the whole arm, attended with great difficulty in performing the least movement. The spine shortly after appeared affected with a commencement of incurvation. I visited her under these circumstances ; and convinced that the attack of rickets is undoubtedly connected with the presence of worms, I prescribed the anthelmintic evacuants above mentioned. The result was an immense evacuation of worms and fetid fœces together. The pains became immediately after less severe ; and without even any strengthening medicine they entirely subsided, and the malady disappeared. She regained in

a few days her wonted health and cheerfulness, and appeared again in society one of its most attracting ornaments, as she had been before. Not the least apparent defect remained in her back.

A little girl thirteen months old, being still at the breast, and who had already begun to walk, became lame at first, and after a few days could not stand upon her feet. In this state I thought it adviseable not only to purge the nurse with the usual anthelmintic evacuants, but also to administer to the child two grains of calomel, and a grain of jalap root dissolved in a little syrup of succory, combined with rhubarb. The nurse having evacuated only a copious quantity of worms, I made her take the same purgatives a second time. By these means I obtained a perfect cure of the child, who four months afterwards walked firmly, and had her legs completely straight.

An able physician (Dr. Graham), to whom we are indebted for the best treatise upon Domestic Medicine, agrees with the most eminent English practitioners, that the greatest attention must be paid in this malady to the state of the bowels ; for which reason he recommends



calomel, James's Powder, extract of colocynth, and the compound rhubarb pills, as valuable alteratives and aperients. But every one will agree with me, that it would be much better to ascribe to these remedies a more determined action, that is to say, one decidedly purgative and anthelmintic.

Medical language ought to be more appropriate to the purposes for which every medicine is prescribed ; and free, as far as possible, from terms without sense, and subject to false interpretations ; that we may not ramble in a confusion of conjectures, so pernicious to patients. It is constantly observed, that emetics and evacuates of all kinds are recommended by practitioners for every malady, in order, as it is commonly said, to keep the bowels open. By this they tacitly consent, that there is in our body a perpetual accumulation of substances, which once degenerated, are liable to occasion an immense variety of diseases, rendering our existence miserable and wretched ;—an opinion deserving the more credit, because as soon as those noxious substances, either verminous or in any way heterogeneous, are expelled from the body, we regain health. We shall therefore be more consistent,

and the method of cure less uncertain, if we ascribe the various disorders of the animal œconomy to causes more generally known ; whilst by administering, as I have already said, remedies of a powerful and determined anthelmintic and purgative action, we generally succeed in obviating and expelling from the body all the heterogeneous substances which constitute the morbid stimulus permanently existing in the alimentary canal, and at the same time in restoring the patient's health.

## CHAPTER XVI.

## TORMINA, VOMIT, AND DIARRHŒA.

ALL the maladies which I have hitherto described are secondary and successive effects of the morbid stimulus generally arising from worms or other heterogeneous substances existing in the alimentary canal: they are secondary maladies, and symptoms indicating the presence of this cause morbidly active. They are consequently effects of the altered circulation of the blood; that is, of a function which may be deranged at any moment by a thousand various causes, without our perceiving it. A simple sensation rather violent and protracted is sometimes sufficient to produce this effect; whilst at others, although more violent, it may be followed by no morbid effect whatever. In a word, these disorders arise from certain combinations, of which, it is impossible to have an adequate idea without a physical explanation of all the phænomena constituting them. It is not therefore surprising, that the theory of these maladies, as well as of many others, has



been to this day enveloped in darkness, and founded upon vain conjectures.

A right notion of sympathetic and symptomatic effects,—that is to say, of those effects which appear at some distance from the cause,—requires a peculiar judgement, and a knowledge, if not exact at least probable, of the connection which may exist between one point and another. There are very few, for instance, who can explain how gunpowder carries the ball to so great a distance; but all who know the fact endeavour to avoid the ball, seldom troubling themselves about the explanation of the phænomenon. So there are very few, even among medical men, who can explain how intemperance becomes the cause of apoplexies, fevers, paralysis, &c.; but every one knows that it is a real cause of such morbid effects, and without explaining the phænomenon every one considers it as deserving censure.

Hypothetical causes have been assigned to sympathetic maladies. Some perhaps will observe, that although worms or other heterogeneous substances may very frequently constitute a morbid stimulus, still their influence cannot be so extensive as has been here represented. But as long as it cannot be positively demonstrated

from what other causes those maladies proceed, from which it may be thought that this morbid agent is excluded, its existence cannot be denied. Such exclusion may perhaps be contended for with regard to the sympathetic maladies ; but in the idiopathic,—that is to say, in those maladies which are the immediate effects of this cause, and have the same seat with it,—there is no reason to deny it. Tormina (pains in the bowels), vomit, and diarrhœa, undoubtedly are immediate effects of heterogeneous substances existing in the digestive organs. The pains which arise in the bowels show that the alimentary canal is in a state of preternatural distention, or irritated by some crude substances collected there, capable of acting as a morbid stimulus. By introducing into the stomach substances liable to alter the peristaltic motion of the alimentary canal, or to irritate it, we may excite vomit and diarrhœa ; so that it cannot be denied that vomiting and diarrhœa are the effects of the action of such substances. This being granted, every time that these effects appear, they will be most certain signs of the presence in the gastric organs of some substance capable of producing them.

The alimentary canal, by means of its peri-

staltic motion causes the food,—after being introduced into the stomach, and deprived by the digestive powers of its nutritious juices, in order to form the chyle,—to be carried first into the smaller intestines, thence into the larger, and to be at last voided as a fæcal and excrementitious substance. This motion of the alimentary canal does not depend upon our will, and cannot therefore be regulated at pleasure; it is effected through the muscular fibres, which admirably surround the stomach and intestines; their motion is excited by the distending power of the substances themselves contained therein, so that they are at the same time both active and passive. Whenever, therefore, we observe an alteration in this function, we must conclude that it proceeds from the hurtful action of these same substances.

These effects are more frequent and obstinate when patients are weak,—a circumstance which incontrovertibly proves the truth of our assertion. In debility we have different degrees of disorder corresponding to that of debility itself; so that, if in a sound constitution a great stimulus is necessary to alter this function, in a weak one the least may prove extremely powerful.



If Sthall's doctrine was erroneous as regards theory, it was much more just with respect to the method of cure. It is not true that emetics and evacuants assist the efforts of a regulating being, the creature of his imagination ; but it is certain that they are suited to remove the cause of the morbid effect or malady,—the object which every physician ought to have in view.

In pains of the bowels, vomiting, and diarrhœa, the morbid stimulus is much more active and apparent than when it excites a reaction of the heart and arterial system, constituting fever and the other sympathetic affections ; and therefore in the former cases may occasion in a very short time the most serious consequences. We have in these cases a real poison, which, like arsenic, sublimate and other corrosive metallic poisons, is liable to produce in the alimentary canal the most violent inflammations, which may easily terminate in mortification and death. All poisons do not equally cause death ; neither do arsenic, corrosive sublimate, aconite, hemlock, belladonna, distilled water of laurocerasus, prussic acid, &c., always act as poisons. According to the most absurd principles of modern doctrine, these and many other poisonous substances are admi-

nistered as safe remedies ; and if in some persons they produce sooner or later their deleterious effects, in others they are not so mischievous ; and patients have often the good fortune to escape the worst of their effects. But the lucky circumstances which preserve from death those who are subjected to modes of treatment much worse than the diseases themselves, are precisely the same as those through which, among the numerous cases left to nature, the sick recover.

There is no physician who is not acquainted with the facility with which the digestive functions become deranged, and who does not know how many noxious qualities the best food, when not well digested, acquires, and how many morbid effects vitiated substances and worms may occasion. No medical man neglects on the appearance of illness to examine with care the patient's method of living, his diet, the state of his mouth, his tongue, and his appetite, &c., in order to ascertain whether there is any alteration in the important function of digestion. But there will be no symptom more evident of the existence of a morbid stimulus in the alimentary canal, than vomiting, tormina, diarrhœa, and dysentery.

Every pain in the bowels of any violence is generally called colic, obstruction, inflammation, or nervous or convulsive affection, for the most part considered as causes of colic, vomiting, or diarrhœa; and all effects proceeding from the morbid stimulus of worms and heterogeneous substances are ascribed to the colic itself; and the wretched patients are exposed either to the pernicious effects of theories, or to the slow and dangerous experiments of doubting empiricism.

The cure of these maladies generally proves very easy when directed with a knowledge of the cause; for an emetic and an evacuant alone will oftentimes suffice to obtain a perfect recovery. It is when they proceed from worms, especially vomiting, that they prove very obstinate; for besides the difficulty of expelling these animals for want of efficacious remedies, even the little efficacy of those administered becomes entirely useless on account of the state of the stomach, which will not retain them. In these circumstances external applications must be resorted to, which, though of little advantage in general, sometimes have procured relief. The patient must be rubbed on the region of the stomach with *oleum petrolei officinalis*, or *unguen-*



*tum arthanitæ.* Let a piece of camphor in a bag of fine linen be hung at the neck, or a necklace of peeled cloves of garlick. A poultice composed of equal portions of soot, lupines, rye, linseed meal, camomile flowers in powder, bruised garlic, salt, and wine, the whole put into a linen cloth and applied warm to the stomach, has proved very beneficial. All these topical applications ought not to be used at the same time, nor must the patient be harassed at every moment with new attempts. The expulsion of worms and heterogeneous substances from the stomach and intestines is not the exclusive work of medicine, but Nature must act in conjunction; and we are certainly wrong to suppose that she will instantly answer our desires. It is much better to leave the patient alone, as far at least as the pains and other symptoms of the disorder will allow, than to show too much solicitude. I cannot help recommending patience as one of the most important rules; which is sometimes less observed by the parents than the child himself.

If vomiting or any other cause do not prevent children from taking the necessary medicines, then, in case of worms, besides those above

mentioned, the following will prove very efficacious.

“Take of camphor eight grains, dissolve it in a few drops of rectified spirit of wine ; mix it in two ounces of common water. To be taken twice or thrice a day alone, or with salt water.”

I have already said that in many cases the expulsion of worms proves extremely difficult, so that the assistance of a professional man is at once required, who will prescribe those remedies which he thinks most proper in the case.

A Spanish labourer, twenty-two years of age, of a lean but strong constitution, was during nine months so much tormented with pains in his bowels, attended with the most obstinate costiveness, that notwithstanding the different purgatives and bleedings, and other remedies administered for checking the different species of colic (as they are called in common medical language) he got no better. He fell away perceptibly, and felt such repugnance to the very sight of food, that he almost refused to take any. He was advised to go to Genoa by sea, in order to take the advice of a physician of great reputation. During his voyage he was taken with sea

sickness, and in the struggles of vomiting evacuated among mucosities and blood five large *lumbrici*, on the expulsion of which an intermission of pain ensued, and the patient in some measure recovered his appetite. The costiveness continued during his residence at Genoa, and the skilful practitioner failed in removing it. The Spaniard therefore returned to his own country; and he applied to me for relief after his arrival at Barcelona, his malady showing the same character as before, viz., tormina, swelling of the belly, obstinate costiveness, dyspepsy, fever, restlessness, and want of sleep. Being informed of what had occurred in his voyage, and of the other symptoms from which the presence of worms was, in my opinion, ascertained, I began to prescribe anthelmintic evacuants in the usual doses, but with no effect. The great difficulty which I met with in obtaining copious stools by administering these remedies under different forms, led me to augment the dose. I therefore ordered a double quantity to be taken, and repeated after two hours. The pains greatly increased; but in less than ten minutes after the second dose, so great was the evacuation of hardened fæces, interspersed with innumerable worms, that



it was inconceivable how they could have existed in his body. Soon afterwards the pains subsided, and the patient slept during four consecutive hours. When he awoke, he complained of a painful sense of weight in his stomach, and felt sick. I then prescribed four grains of ipecacuanha and two grains of calomel in some water; and immediately after having taken this medicine, he evacuated from his stomach nine *lumbrici*, each about ten inches long; and had besides some stools containing other worms. A simple and nutritious diet was sufficient to restore his strength, and perfect his recovery. I saw him a year afterwards, and he had grown so stout as to appear quite another man.

This and a great many other facts, show how wrong those are who endeavour to explain natural phænomena by an insignificant jargon, considering every symptom of a morbid affection as a distinct malady; so that the most simple diseases are covered with a mysterious veil; while, if considered in a philosophical point of view, and according to the laws of the animal œconomy, they would be very easily subdued.

## CHAPTER XVII.

## COUGH IN GENERAL, AND HOOPING-COUGH.

THE heterogeneous substances and worms existing in the stomach, will, the former by their irritating nature, the latter by their continual motion, either immediately or sympathetically tickle the muscular fibres of the diaphragm (a large muscle which divides the cavity of the thorax from that which contains the intestines, and which is immediately adherent in the direction of the thorax to the basis of the lungs, and in the direction of the intestines to the basis of the stomach) to such a degree as to occasion a preternatural and involuntary contraction of this muscle ; in consequence of which, and according to the laws of sympathy, all the muscles connected with the function of respiration contract at the same time. This disposition of these muscles causing a general contraction of the cavity of the chest, there follow that expulsion of air and emission of sound which constitute the cough.

Cough has been, and by some is still consi-

dered as an inflammatory or nervous disease of the lungs or windpipe. The most eminent physicians have also acknowledged it to arise from a cause existing in the stomach; and the most accurate observers agree that very frequently it proceeds from flatulencies, acrid substances congested in the stomach, and worms. But a fatal devotedness to theories which will explain all natural phænomena by means of conjectures, has made the real cause to be nearly forgotten, and has induced the greater part of medical men to assign the effects of this malady as its cause.

The true morbid cough is that which is produced by an involuntary contraction of the muscles of respiration; and its cause does not reside in the cavity of the lungs, but is applied to the muscles. There is perhaps no muscle so exposed to the stimulating action of heterogeneous substances as the diaphragm. Besides that the muscular fibres of the diaphragm are connected with those of the œsophagus, or gullet, which passes through it at its junction with the stomach, the diaphragm lying for a long tract upon the stomach, must necessarily be in immediate contact with the membranes of it;



and if this viscus contain substances liable to irritate it, in that part which lies towards the diaphragm, this also must be affected by them, and must be thrown into contraction whenever the irritation is considerable. If physicians, who after the most constant and exact observations have admitted the stomach-cough, had endeavoured to give the physical explanation of it, they would not have adopted so many classifications of the disease, to the erroneous treatment of which have been sacrificed just so many victims as there have been hectic and consumptive subjects, who have miserably lost their lives through medical means more fit to kill than to cure them.

There is no doubt that cough consists in a violent contraction of the muscles destined to carry on respiration, and that morbid cough is generally an effect of vitiated substances in the gastric organs ; while experience plainly shows that this malady, when recent, for the most part yields to the action of emeto-purgatives, whence (for the reasons already adduced in the Article "Definition of Causes in general") the exceptions are of no weight, which would seem to prove that cough is not an effect of heteroge-

neous substances existing in the stomach and intestines, but of some other,—such as a current of cold air, wetting the feet, overloading the stomach, declamation, cold, constipation, letting perspiration dry on the skin, and many others. Although the cause, when it is worms, is sometimes very difficult to overcome, yet, whenever at the beginning of the complaint emeto-purgatives are employed, the patients rarely fall into hectic, as is frequently the case with any other mode of treatment. That cough, which leads to consumption and the grave, is often the effect of worms, and is demonstrated by the accurate inspection of subjects which have been its victims.

Convulsive cough (or hooping-cough), although it generally appears to have an epidemic character (and in the opinion of many attacks children only), is not a malady essentially different from any other cough, and does not require a peculiar treatment, except as regards the degree of its violence, which may oblige us to proceed with more promptitude and energy.

This malady chiefly belongs to childhood, and it is presumed, that it never attacks the same individual more than once—a circumstance which, from its analogy with the cases of small-

pox and measles (which are commonly thought contagious diseases), has led some to think, however erroneously, though with some delusive appearances of truth, that convulsive cough is contagious, and that it may be carried from one place to another even in the clothes of medical men themselves. But the prejudice which assigns a contagious character to this malady as well as to many others will be eradicated, as soon as the right use of reason prevails in medicine as in other branches of science.

It is necessary to observe again, that cough (except that cough which proceeds from the necessity of expectoration of the viscous substances collected in the bronchia) is constantly an effect of a morbid and involuntary contraction of the muscles which serve to respiration ; that is to say, an effect of a real convulsion of muscles, especially of the diaphragm ;—that the cough which ensues after taking cold, differs from the hooping-cough only in its violence ; and that it is consequently an error to ascribe it to a particular miasma, as it has been, and still is, by many professional men. There is no other difference, as regards the real nature of the



disease, than this,—that the cough, erroneously called rheumatic, or catarrhal, and ascribed to cold, very often proceeds only from flatulency, acidity, and substances of any other morbid nature; whilst hooping-cough mostly arises from worms.

As soon, therefore, as the cough commences, the patient must diminish the quantity of his daily nourishment, and observe a low and aqueous diet (if he be an adult), in order that the heterogeneous substances being diluted, may be removed from the proximity of the diaphragm, and pass into the intestinal tube. If this be not sufficient, two grains of emetic tartar dissolved in six ounces of common water, a table-spoonfull being taken every six or seven minutes, will prove very efficacious. And in case the malady,—such as cough, constipation, rheum, head-ache, &c.,—proceed from heterogeneous substances, the patient will undoubtedly recover the following day, especially if the action of the medicine excite vomiting.

If the complaint prove obstinate, recourse should be had to some anthelmintic purgatives. Among a great number which I have tried, I

prefer jalap root, wormseed\*, and sugar, to be taken according to the formula I have already given, or this same powder in conjunction with infusion of senna.

When the purgative merely moves the bowels

\* Some apothecaries show a certain repugnance to deliver these two medical drugs when prescribed in the quantities of a scruple of jalap and a drachm of wormseed ; and will recommend the greatest caution, thereby raising such doubts in the minds of those who are to use them, as to diminish and even destroy their confidence in the prescriber.

It would not be strange if this were to happen in a country where all dangerous and complicated chemical and pharmaceutical preparations are banished from practice ; but it seems quite unaccountable that it should take place in one where a hundred substances of different nature and action are frequently combined, and administered in a thousand different ways, and where nostrums are blindly applied with an unbecoming publicity ; so that it is impossible for the most sagacious physician to prognosticate the effect of an aggregation of so many, and often discrepant ingredients, except that sooner or later it will be very pernicious. I say this, only in pursuance of the profession I have made, of speaking with that candour which becomes every philanthropic practitioner of medicine ; and because I do not fear being contradicted in a matter of fact like this, and am convinced that all philosophical physicians will agree with me as to the necessity of putting a stop to the scandalous practice of trafficking in man's health, like the ancient priests of Esculapius. Let chemists, therefore, lay aside a servile attachment to certain Pharmacopœias, at least as regards these simple medicines ; and be more cautious in dispensing so many other dangerous prescriptions, which for the most part are either poisonous or at best of suspicious quality.

without removing the worms, it only debilitates the patient, and exposes him more to the morbid action of worms ; as it mostly happens when we administer cream of tartar, Epsom salts, tamarinds, cassia, and other saline purgatives and mild evacuants, which are very pernicious, and even make the disorder worse : but still their effect is less pernicious than bleeding ; for the relief obtained by the subtraction of blood is generally transient, and followed by fatal consequences, particularly when practised in these kinds of maladies. If children be averse to take the above-mentioned anthelmintics, they should be conjoined with compound syrup of succory, which being sweet will make them more palatable. Corsican coralline may also serve as an effectual substitute for anthelmintics. An infusion of it may be mixed with coffee or tea for those accustomed to these beverages, and taken for three or four successive mornings. Among anthelmintics that I have found efficacious and proper at the same time both for children and adults, I should give the preference to the vermifuge comfits of Mr. Chancel, a chemist at Briançon, in France, both because they have a pleasant taste, and because they are very active. Two of



them given every morning for two or three successive days, operate admirably. If children are not obliged to keep their bed, (as is generally necessary for those attacked by the whooping-cough,) they must be carefully protected from the cold, wet, grief, and all predisposing, that is to say debilitating causes, under the action of which, fresh attacks might arise. They should observe a proper diet, that is, nutritious, but not too copious, in order that injurious substances may not be accumulated together with worms in the digestive organs; which would otherwise easily take place, on account of the disordered state of the digestive functions. When the attacks are frequent and attended with vomiting, a few drops of laudanum, or half a grain of extract of aqueous opium, in some warm and palatable beverage, or a small spoonfull of syrup of meconium in water, will check them, and give time to administer the proper anthelmintics.

By the foregoing plan I have always subdued whooping-cough in a short time; and as the difficulty in this case consists in removing the worms, and as we do not yet possess any certain means of overcoming this cause, I have only pointed out in the course of this treatise a few

remedies which seem to me the most efficacious; without intending to exclude the many others, which are daily employed by physicians and parents, and from which the most satisfactory results have sometimes proceeded, although in many other cases they have proved entirely useless.

When great difficulty is met with in removing the cause of this malady, and the cough daily increases, it will be prudent to apply to a professional man;—a measure which will be wise whenever any kind of illness becomes severe, in order that proper treatment may be ensured under competent direction.

## CHAPTER XVIII.

## CROUP.

THIS malady is called by some authors *suffocative sore-throat*, by others *suffocative catarrh* or *asthma*, and by others *croup*. It generally comes on in the night. The child is most frequently awakened by frightful dreams, with such a difficulty of breathing that he seems nearly suffocated. Very young infants are cut off by it generally before it is perceived that they are ill. Children from three to seven years old (a period in which the croup most frequently occurs), suddenly awaking, sit up in their beds in a state of terrible distress: the breathing is extremely difficult, frequent, short, wheezing, and hurried; sometimes accompanied with a croaking cough: the face becomes red, the look wild, and the eyeballs so prominent that they appear ready to start out of their sockets; and the pulse quick and irregular. By the application of some warm linen to the breast the paroxysm will presently subside, the child will



go to sleep again, and awake the following morning as healthy as he was before.

This malady also is a simple nervous affection very uncommon : but in the few cases which I have had an opportunity of observing, either of those who were suffocated before any relief could be afforded, or of those who were cured, I think I have sufficient proof of the correctness of my assertion ; and can say with confidence, that all the writers who have treated of this accidental morbid modification, have been mistaken in thinking it a peculiar disease. In those patients who have recovered, I have witnessed uniformly beneficial effects from the use of anthelmintic purgatives ; and in those who have died from the violence and rapidity of the disease or from the antiphlogistic mode of treatment, and have been dissected, I have constantly observed in the stomach a great quantity of worms. If practitioners who dissect subjects that have died of this malady, instead of examining the state of the lungs and other viscera, where they think they find the cause of death and the effects of the malady itself, would attentively examine the substances contained in the stomach and intestines, they would always, or nearly so, find in

them the real cause of the disease, viz. a plentiful quantity of worms ; and more in this than in any other morbid affection proceeding from the same cause.

In a malady of some duration the derangement of the organization by the noxious action of worms may become a cause of further morbid processes, although the vermination no longer subsist. As long as the worms are alive, the digestion has no power over them ; but as soon as they are dead, they are digested like any other animal substance. When alive, they deprive the individual of a great quantity of nutritious food ; but when dead and digested, they serve as food for him themselves ; and their sloughs yielding more or less to the digestive powers, often pass off under the form of mucus. It is certain that the mucus evacuated after taking drastic purgatives is not, as is supposed, the same which serves to protect the inner coat of the intestines from the immediate contact of the excrementitious matter ; nor chyle poured out from the chyloferous vessels by means of their retrograde motion, as some physicians have imagined ; but is really the sloughs of dead worms.

Under these circumstances, as well as when worms are evacuated during illness, and the feculent matter is not examined, it may happen that on dissection no worms are found ; but in this malady and in many others which destroy life in a short time, worms may always be met with.

It is very uncommon for sucking children to have the croup ; but when they do, it very seldom admits of a cure, as they often become suffocated before it is even perceived that they are unwell. The precursive symptoms of the disorder are too equivocal to allow of prevention : nevertheless, if we take due heed to children as soon as we perceive the least alteration in their animal œconomy, under whatever aspect it may appear, we shall generally prevent it : and I have already pointed out how infants at the breast should be treated as regards the vitiated qualities of the milk, and what are the best means of subduing vermination.

In children who can express their feelings, visions of fantastic and fearful objects, and screams of terror on waking from sleep, are certain signs of the presence of worms, and are more particularly forerunners of this malady. By attending



in time to these first alterations, the croup also will be easily prevented. In case it has already commenced, we must endeavour to allay the paroxysm by applying to the stomach and round the neck fomentations of warm milk, which will prove more beneficial than any thing else. As soon as the fit is over, the anthelmintic remedies must be resorted to, beginning with the emetic tartar, which, besides its property of removing from the stomach indigested substances, and thus diminishing the power of the morbid stimulus, has the effect, by means of the violent motion which the vomiting occasions, of loosening the worms from their seat, and thereby of facilitating their expulsion. In this manner the anthelmintic evacuants always prove the most efficacious. Several children to whom I gave those before mentioned, soon recovered, and never had a relapse.

## CHAPTER XIX.

## CONVULSIONS, CONVULSIVE MOTIONS, AND EPILEPSY.

A CONVULSION is an involuntary contraction of the whole muscular system, or of some muscles only. The carnosus fibres have the property of contracting when they are irritated; but the muscles are in general so well protected from the action of stimulus, that if we except the diaphragm and the muscles of the throat, no irritating power, not mechanical, can exert its influence upon them. Muscles are organs for the producing of motions depending upon our will, and are put in action by the ideas predominating in the sensorium; or in other words, rendered active by the soul through the nerves, in a manner which we shall most probably never be able to discover. Whatever may be the mechanism of the nerves, and the mode in which they connect our ideas and the muscles subjected to the dominion of our will, it little concerns us to understand it. We know with certainty, that muscles are put in action by the immediate influence of the nerves.

The horror felt at hearing an account of some barbarous deed is the effect of a general corrugation of the carnous fibres under the influence of a sensation pervading the nervous and muscular system, and constitutes a convulsion. Any strong sensation diffusing itself throughout the nervous system, throws the whole muscular system into a state of involuntary contraction, which, if very great, causes the patient to fall at once to the ground. It has been commonly thought, at least since the nervous system has been discovered, that convulsion is an exclusively nervous affection ;—an opinion which has no foundation. The nerves are only the conductors of sensations communicated to them by stimuli more or less powerful, or by the morbid irritation of physical causes either in the inner or outer parts of the body ; and convulsion mostly proceeds from the noxious presence of worms. Nor will it avail to say that they often originate in fright and terror, so as to afford grounds for supposing the existence of another cause. I could produce many arguments in support of my opinion, and prove that the fact is very different from what it appears ;—but this is not the place.

Sometimes convulsion is not to be considered



as a disease, if it proceed from a cause easy to be removed, any more than fever originating in violent and protracted exertion of the body. Weakly, fickle, and passionate women are subject to convulsions, as are children of the like temperament. The tears of either so easily shed may also be considered as convulsions ; but the attainment of their wishes, or a better use of their reason, will prove the most efficacious remedies for these transitory affections.

Weak constitutions are the principal predisposing causes of convulsions ; which latter have for their principal cause, that of all other maladies, namely, heterogeneous substances or worms collected in the alimentary canal ; and in children they are almost always associated with fever.

Convulsive motions may also be the effects of some acute pain, and consist likewise of a general contraction of the muscular system. When in children they are joined with fever, they always denote a particular alteration in the vessels of the brain, and acquire the character of epilepsy. Patients in this case lose sensation, roll their eyes, and are in danger of dying in a state of apoplexy.

Epilepsy is a very strong convulsion, in which the patient falls down in a state of utter insensibility, and foams at the mouth. This malady is for the most part an exclusive effect of worms ; and it would be difficult to prove the contrary with any show of reason or evidence of facts. The same treatment, therefore, which has been recommended for fevers will be applicable to this disease.

A young man, robust, and of a sanguine plethoric habit, twenty-three years old, had been subject for a long time to epileptic fits, which returned two or three times every month. No remedies suggested by the faculty afforded him any relief. Notwithstanding the great difficulty which I found in subduing the vermination, I persevered, and after seventeen days, during which I had employed various anthelmintic medicines in different forms, the patient evacuated by stools a vast quantity of worms without the least pain ; and from that time was no more attacked with any epileptic fits.

Trismus (a spasm or contraction of the lower jaw, so that the patient cannot open his mouth), which occurs in new-born children, and which has been observed by Dr. Cadwalader Evans of

Philadelphia, originates in the same cause ;—a truth which is completely demonstrated by the practice of Cullen, who, while in Jamaica, surmising that something else besides the meconium in the intestines might be the cause of this disease, which constantly proved fatal to infants who were attacked by it, began to purge those entrusted to his care ; and from that time the malady disappeared.

Although no observation has been made by these able practitioners on the subject of the evacuation of worms, it is nevertheless true, that the cure was effected only by expelling the heterogeneous matter constituting the morbid stimulus in the bowels ; since the malady until that moment was incurable.

It must also be observed, that the happy cure by Dr. Rowley of London, of two persons in the like melancholy predicament, is entirely to be ascribed to the anthelmintic and purgative action of mercury, tartar emetic, and camphor, which he employed in combination.

I sincerely regret that Dr. Vincenzo Solenghi, in other respects a learned physician, and withal a skilful surgeon, has called into question the reality of these facts, advancing no other argu-



ment against them than the *insignificant method of cure*, as he calls it. This language is certainly unbecoming, and particularly so in a professional man who undertakes the office of a public instructor; because such lamentable blindness, besides maintaining a perpetual source of disagreement among practitioners, injures their own reputations by the vain presumption to which it leads, of pretending to prove every thing by sophistry and subtilty of argument, which ought never to be countenanced by medical men. How can the action of mercury and emetics be considered as unimportant, when these preparations are known to be sovereign remedies in every disease? Very serious reflections might be cast on this physician respecting his use of tincture of cantharides in large doses, in a case of tetanus (a spasm, or rigidity and immobility of the head and trunk); a practice not only in no way commendable, but altogether dangerous, and which ought to be for ever banished from medicine; especially after the success obtained by Cullen, Cadwalader, and Abernethy, in cases of trismus and tetanus, from the simple use of evacuants.

Abernethy has also illustrated by incontrovertible facts this important point of pathological

doctrine ; and has particularly shown that epilepsy and tetanus, even when these affections appear in consequence of traumatic causes, are sometimes checked by administering medicines proper to free the digestive organs from the heterogeneous substances which they contain, by re-establishing, according to him, the harmony between these organs and the nervous system ; which, in consequence of their mutual and direct sympathy, are thus disturbed in the performance of their peculiar functions.

But although this learned and judicious practitioner has not thought proper to pronounce in a positive manner, as he certainly might have done, which of the two morbid combinations,—that is to say, the morbid affection of the alimentary canal, or the derangement of the nervous system,—is the cause of the fatal termination of these maladies, especially tetanus, thinking it probable that they may be at the same time both cause and effect ; I shall venture to assert, without in the least diminishing the great veneration that I profess for his distinguished professional merit, that there appear to me reasonable grounds for believing that the presence of a morbid stimulus (heterogeneous substances) in the digestive organs is the exclu-

sive cause of almost all maladies and of their exacerbation, even when they arise from external causes ; as very frequently happens in this dreadful spasmodic affection, I mean tetanus. Nor can it well be conceived otherwise : for according to the principles established and sanctioned by daily practice, whatever be the cause from which maladies proceed, they cannot, in regard to their state of exacerbation, be looked upon but as effects arising from the development and progressive action of noxious substances collected in the digestive organs ; because it has been proved, that in consequence of a previous debility of the constitution, occasioned by some predisposing cause, substances, although most homogeneous, may degenerate in different ways, and become in various degrees detrimental, so as to act as if they were vitiated and heterogeneous. This is the reason why, when we succeed in expelling from the body these noxious substances, or in correcting in any way their vitiated nature, the malady is at once overcome, the digestive functions are renewed, and health is restored.

Children are frequently attacked by a sudden blindness (recent and imperfect amaurosis) ; and it is a positive fact, that they will recover their



sight with the greatest facility, as soon as the stomach and intestines have been emptied by means of some proper anthelmintic evacuants. It must also be observed, that Corsican coralline, worm-seed, and valerian, in conjunction with honey, are the safest and most active remedies for destroying, or at least removing worms, and procuring copious stools, followed by an immediate recovery of sight; an incontrovertible truth, which has been amply demonstrated by the practical observations of Professor Scarpa; the use of emetics being rarely necessary, though they are often required for adults in similar circumstances. It seems then we may safely conclude, that, although in these, as in many other maladies, a close connection is observable between the digestive organs and the nervous system, so as to render it a matter of doubt to which of the two systems (gastric or nervous) we should refer the cause of these diseases; still, the cure being never perfected without the expulsion, removal, or neutralization of degenerated or otherwise heterogeneous substances in contact with the gastric system, these substances ought to be considered as the immediate cause of all diseases, and never as the effect. It would

therefore be useless to look for any other cause, since it is only by removing this that we can restore health.

*Tic douloureux*\*,—a malady which has always been involved in obscurity, (and for which a thousand specifics have been invented, all without effect; to which may be added many other equally useless attempts, such as the surgical operation of the recision of the inferior orbital nerve,)—has also been successfully cured by emetics, calomel, jalap, and other purgatives, as rhubarb, *gumma gutta*, &c.; remedies which have no other action than that of removing or subduing in some way worms and vitiated substances collected in the digestive organs; which, as Dr. Graham judiciously observes, are mostly the cause of this extremely painful affection.

The peculiar paralysis (first observed by Monteggia) affecting one only of the lower extre-

\* *Tic douloureux* is a most acute and agonizing pain, which like a flash of lightning, or a dart, suddenly attacks some parts of the face; and is distinguished from the *globus hystericus* and venereal rheumatic pains, by its rapid invasion, the shortness of its duration, and the peculiar violence of the pain, as if the flesh were cut; and some quick painful vibrations, which like shocks of electricity dart every now and then through particular parts, without leaving any mark of alteration.

mities of children at the breast, originates also in a gastric disorder, which if neglected, as is commonly the case, that one of the lower extremities to which this variety of disease is confined, becomes immoveable, flaccid, and hanging down : the child as he grows up will in some degree recover his strength ; but he will pass the remainder of his life trailing one of his legs after him, without any possibility of a further cure.

This malady being preceded by a fever, which generally lasts from two to three days, and being attended with dysenteric symptoms, clearly indicates what the internal treatment of it should be\*. We ought not therefore to lose time, as this author proposes, in the application of blisters, almost always useless, at any rate tedious, painful, and troublesome.

\* See *Derangement of the Digestion, and its Cure.*



## CHAPTER XX.

FEVER IN CONSEQUENCE OF DENTITION, AND ITS  
CURE.

CHILDREN are subject to painful, and sometimes dangerous and fatal complaints during the period of their first dentition. When the irritation of the gums is intense, fever and convulsions ensue, with a series of alarming symptoms, such as restlessness, acute pains, diarrhœa, loss of sleep, &c.; and these will be followed by other disorders, viz. rickets, scrofula, consumption, hydrocephalus (dropsy of the head), &c. if a right mode of treatment do not check the progress of the fever.

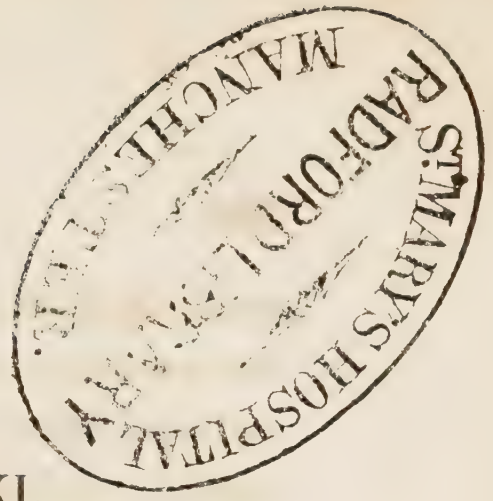
Whenever a rising tooth meets a great resistance from the gum, and the consequent irritation is such as to occasion great inflammation and even fever, from the intensity of the pain; in this case, besides using the simple means of facilitating the cutting of the tooth\*, especial attention must be paid to stop the fever.

\* It is of the greatest benefit to rub the gums gently with the finger dipped in honey. The mechanical action of the

Medical authors recommend purging children with manna, syrup of succory compounded with rhubarb, castor oil, or some saline purgatives, in order to allay the irritation of the gums, and to check the tendency to inflammation and fever. But I have constantly observed, that fever is much more easily and quickly subdued by means of anthelmintic evacuants: therefore, if the fever be attended with acrid eructations, vomiting, green stools, swelling of the belly, gripings, &c., the child should be put less frequently to the breast, and the anthelmintic evacuants, already mentioned under the head of *Indigestion*, be administered to him as well as to the nurse; a plan which will generally prove sufficient to restore the child's health.

But if the fever, flush of the face, burning heat of the skin, acute inflammation of the gums and mouth continue, application to a professional man will then immediately become necessary.

finger, and the alterant nature of the honey, will in some measure render the gums thinner, and induce a slight inflammation, which will facilitate the cutting of the tooth.



## CHAPTER XXI.

## COXALGIA.

COXALGIA is an inflammation and consecutive suppuration of the joint of the thigh-bone and the bones of the pelvis. This malady occurring very frequently in children, and being generally unobserved by parents, I shall shortly notice it here, and point out the means of preventing some consequences which may otherwise prove very serious.

In the commencement of this disease children become lame, and show signs of general debility. The leg becomes slender and longer; and when the child is standing on both feet, the buttock on the side affected appears less full and round than the other, and somewhat swelled towards the thigh; and acute pain is sometimes felt at the knee. In general, when standing, he leans upon the sound leg and turns the other out, the toes only touching the ground. Children affected with this disease are very liable to fall in walking: when in bed, they draw the thigh affected towards the belly, and cannot ex-



tend it without pain. If pressure be made upon the joint, the patient feels a slight pain behind the trochanter. Some of the inguinal glands are swelled. If the malady proceed, the symptoms increase in violence; slow fever supervenes, attended with loss of strength; then consumption, and frequently death.

Sometimes this malady arises from rheumatic inflammation so called, or from puerperal fever. In these cases it is of an acute character. But it more frequently comes on, and increases, like slow inflammation and articular suppuration, constituting white-swelling; to which class of diseases this malady is referred by Ford, who has given us the most complete account of it since Hippocrates.

Although this malady may proceed from various other causes, still, as the most frequent are falls, contusions, and other injuries of the great trochanter, parents cannot be too anxious, as soon as they perceive in their children a tendency to lameness, to have them carefully examined by a skilful surgeon; for neglect in this case would expose them to certain death. And, what is perhaps worse, if timely resistance be not made to the progress of the disease, the child, although it should be cured, will undoubtedly continue

lame,—an object of everlasting regret and reproach to those parents who did not endeavour to prevent deformity in their offspring by having recourse in due time to surgical aid.

Whatever be the cause of it, this malady being a slow inflammation of the articular capsule joining the head of the femur with the acetabulum and neighbouring parts, the first measures to be adopted are, tepid baths, leeches, and blisters; but the surest remedy is a cautery, effected either with a hot iron or caustic behind the great trochanter, which must from time to time be kept open with a pea, and excited to discharge by the application of ointment of Spanish flies. Ford prefers this mode of cautery to the seton; because the irritation arising from the former may prove an additional advantage to that of the suppuration.

Besides the use of the foregoing topical means, particular attention must be paid to the state of the stomach and bowels; and accordingly, the anthelmintic evacuants already suggested for other maladies, ought to be administered in doses proportioned to the child's age. But saline purgatives, or others of a like nature, should be avoided; because, their effect being only to de-

bilitate, they would prove very detrimental in such a malady as this, on account of the facility with which, whenever suppuration supervenes, it passes into gangrene, and so causes death.

If, in consequence of the violence of the disease, or the delay or insufficiency of the treatment, the suppuration cannot be stopped, the next object is to prevent its getting worse, by allaying the pain with opium, and keeping up the strength with nutritious food and bark ; or by removing the patient into more salubrious air, when that can be done. Under this treatment some will recover ; but, as I have already said, they will be always lame with a stiff joint ; and even this cure will not be performed but after months, and sometimes even years.

The acute coxalgia terminates more speedily, either fatally, or by imperfect recovery ; that is to say, by ankylosis.

I must therefore again intreat parents, or those who have the care of children, that, as soon as they perceive in them the least tendency to lameness, they will without delay place them under the care of an experienced and skilful practitioner, in order to avoid those consequences which, as I have before said, generally prove fatal.



## CHAPTER XXII.

## GENERAL OBSERVATIONS.

It follows, from what has been said, that all the maladies to which children are most frequently subject, and which are described in this treatise, (the two last excepted \*,) ought to be considered only as so many accidental morbid modifications, and not as peculiar maladies :—that these maladies, being immediate, secondary, or subsequent effects of a morbid stimulus in the alimentary canal, are themselves the most certain and evident signs of the existence of this stimulus :—that the causes of the development of disorders are merely predisposing, or, in other words, debilitating causes ; so that the constitution, or those

\* Let it be well observed, that although these diseases should proceed merely from mechanical action,—the former from difficult cutting of the teeth, and the latter from any fall or blow whatever,—such diseases grow worse, and even become incurable, if attention be not paid to the state of the stomach and intestines ; especially when there is reason to apprehend the addition of worms, the existence of which is generally concealed.

parts upon which they act, not only become liable to be deranged by the power of the morbid stimulus, but also to be affected in their organization:—that the proximate cause of all maladies consists in the alteration of the animal œconomy; and that the medical art having no direct influence upon this cause, ought to take its measures for the expulsion of the morbid stimulus which affects the stomach and intestines, and the removal of the state of predisposition, which is that of debility, by a strengthening mode of treatment and the restoration of the digestive functions, upon which depends the re-establishment of the other functions of the animal œconomy, and wherein consists the cure.

It follows, likewise, that all the pretended virtues ascribed to medicines for curing diseases, and producing effects which exclusively belong to the laws of animal organization, are quite chimerical; since their only use is, either to remove the morbid stimulus from the gastric system, or to render it less noxious:—that the debilitating treatment is always prejudicial:—that blood-letting is in these maladies almost always injurious, and generally fatal:—and that it would be much better for mankind that the doctrine of medicine

should be reduced to a simple and clear system, founded upon the laws of animal œconomy :— that maladies should be ascribed, not to abstract and imaginary, but to positive and indisputable causes. Thus, we should no longer support by hypothetical arguments those erroneous assertions, which are so common in the theories of the medical art ; and patients would not be exposed to the risk of injury from dangerous experiments of an infinite number of medicines, useless, if not destructive, like the poisonous substances which are now so much in fashion.

In general a few medicines judiciously administered will effect the best cures. Nevertheless, as there is no infallible remedy for worms, so there is perhaps none which has not, some time or other, proved beneficial. By varying our medicines we obtain sometimes a better result ; and as there is scarcely a family which has not some specific for worms, any which has been found beneficial may be tried instead of those above suggested.

The age of childhood is that in which both the moral and physical parts of our constitution are capable of receiving modifications, on which will depend the prosperous or adverse condition of



the whole course of life. Although the physical part be the work of Nature, and the moral, in a certain sense, that of man ; yet there is so close a relation between them, that the comparative perfection of the one may be impaired by the defects of the other, and the whole be rendered, like the present state of human nature, faulty and imperfect. Notwithstanding which, the happiest conformation of body can never of itself rectify the bad qualities of a perverse mind ; while, on the other hand, a well-ordered mind may oftentimes alleviate in some degree the evils of a body, on which misery has been entailed by the vices of others : nor can a defective organization ever exert an influence on a virtuous mind : while, on the contrary, a vicious mind may reduce the most perfect organization of body to a lamentable state of disease. Whence it follows, that many disorders are to be considered as the effects of a pernicious influence of the moral on the physical part of our nature : although the latter, by means of its organic principles, always tends to its own preservation, with a force sufficient to resist not only the variations of the seasons, but also every other hurtful agent which in the ordinary course of things may bear upon it.

The soul, the work of the Almighty, is susceptible of reason ; but is not of itself entirely reasonable : for if it were, every man would be equally wise. The due cultivation of the mind being a work of labour, constitutes an essential duty of man ; and he may expect that the result of his endeavours will be proportioned to the means which he has employed to obtain this important object. The right or wrong use of reason, from which proceeds happiness or misery, health or sickness, depends upon the good or bad impressions made on the mind of the child ; and it is thus that intellectual power exerts an influence upon the organization.

The choice of a healthy, well-formed, and modest nurse, must be the first care of parents, whenever, on account of some peculiar circumstances, the mother cannot fulfil the natural duty of nourishing her offspring.

The diet of a child just weaned should be simple ; pap seasoned with fresh butter and salt only : bread and water ought to be his first food, but varied every now and then in quality. People of the more affluent classes must not be afraid of seeing their children eat coarse bread and other homely food, or walking bare-foot and

bare-headed : as it is thus that children will acquire more firmness in their limbs, and become less affected by the variations of the weather and seasons.

Children ought not to be allowed animal food every day, until they are five years old ; but they should have bread and milk morning and evening. Wine should not be given them before they are seven years old, and even then it ought always to be mixed with water. Fruit is excellent food, when quite ripe ; and it should be eaten with bread, in order that they may not take too much of it.

Children should also be let to walk and run at their pleasure ; and their sleep should be interrupted but as little as possible, rest being extremely necessary to them. The constitution of children is very susceptible of disorder, and the circulation of the blood is easily deranged, as I have already shown ; and every perturbation occasions a great waste of substance, which at this tender age is especially needed ; for hence it is that children are always asking for food. During sleep, the development of their limbs and the increase of their body proceeds better than when they are awake ; because the action of the external objects upon



them being very powerful, the functions of their animal œconomy are apt to be more or less deranged by it.

In order that children may not become too delicate and too sensible of cold, they should not be clothed too warmly. They require less clothing than adults ; but if they are weakly, the wearing a flannel shirt may be of service. For several months, or even the first year, it is better to let them wear no stockings, provided their clothes be long : and whatever be their age, the whole of their dress should be loose and easy, so as not to prevent the free motion of the limbs. It is also very beneficial to expose gradually to the open air the legs, arms, and breast of such children as have a robust constitution.

As regards the improvement of the mind, we must endeavour to accustom children from their earliest infancy to be submissive and obedient, by using mildness towards them, whereby we shall succeed much better than by severity ; obliging them to deserve what they wish for, but absolutely refusing to comply with their whims : their tender age cannot excuse a too great readiness to satisfy their desires : excessive tenderness will be injurious to them ; because it is in

early infancy that they ought to be accustomed to self-denial; the first faults, if not corrected, being germs of the most enormous crimes.

Children learn more from example than admonition, being more inclined to imitate others than to listen to advice. If, therefore, they are kindly treated, they will be affable and gentle; and those fathers and mothers alone, who consider their children as friends, will always find them such. Those, on the contrary, who treat them with severity, anger, and inhumanity, will only bring up slaves, who will take every opportunity to gain their liberty, and abandon themselves to false friends, likely in a short period to do them more harm, than the good which their parents have effected through a long course of time.

The education of children is a matter of the greatest importance; it is therefore necessary to repress in them the first symptoms of dissoluteness. A child who learns betimes to abhor bad actions, and to love and respect his fellow-creatures, will not be so easily seduced by bad companions. Keeping the path of virtue, he will learn to become on most occasions superior to human vicissitudes; and passion will not have upon him that influence which is so pernicious and fatal to mankind.

Man, while under the guidance of virtuous principles, cannot be wicked, even though not curbed by any positive law ; and will not cease to be useful to his fellow-creatures, whatever be the obstacles he may have to encounter ; while, on the contrary, there is no punishment which will prevent the man who is thoroughly ill inclined from committing bad actions.

Good or bad impressions on the mind of youth are indelible. As life advances, the bad grow worse, rendering the moral faculties defective, the physical infirm, and existence itself miserable and of short duration.

Let it therefore be a sacred obligation with parents, to eradicate in time the first appearance of evil in their children, whether it be of a physical or moral nature, and we shall then have in every generation a more healthy race of men, fulfilling cheerfully the duties of their several stations, and rendering themselves extensively useful to society.

THE END.



### ERRATA.

- Page 34, line 21, *for vicsisitudes read vicissitudes.*  
46, line 13, *dele is.*  
68, line 26, *for violen tdegree read violent degree.*  
79, line 26, *for drachmsa ta time read drachms at a time.*  
84, line 5, *for wasch ecked read was checked.*  
210, line 4, *for humours read tumours.*  
282, line 23 and 24, *for would expose read would generally expose.*











